

FOLIO

University Neighborhood Council Organized

In 1978, B.Y. Card, Professor of Educational Foundations and a resident of the McKernan area just south of the campus, sent a series of ten questions to the community leagues bordering the University and the University Hospital. The purpose of posing these questions to the community leagues was to determine the feasibility of setting up a University Neighborhood Council that would draw on the strengths both of the major institutions and of the surrounding community to work towards mutual solutions to problems that touch on both groups.

The response to the questions favored establishing the Council, and during the fall of 1978 the University Neighborhood Council held its first organizational meetings. The Council consists of representatives of the community leagues in the University area—Garneau, Windsor Park, Belgravia, McKernan, Parkallen, Allendale, and Queen Alexandra, observers from the University and the University Hospital, a Students' Union representative, a representative of the students in residence, and a representative from the W.W. Cross Cancer Institute. Fred Engelmann, Professor of Political Science, is the representative of the Garneau Community League and at the same time an invited observer from the Association of the Academic Staff; the Graduate Students' Association and the Non-Academic Staff Association have both been invited to participate in the Council but have not as yet confirmed their

participation.

Obviously the first objective of the Council is to improve communication among all the groups involved, institutional and community, "in all matters affecting the quality of life in the University area." Dr. Card, who has seen for some time the need for such a Council, is concerned about the impact, often negative, of the University and the University Hospital and their activities on the surrounding community. He feels that by working together, or at least talking to each other, they can foster and preserve environmental quality in the area that can be advantageous to both groups. He pointed out the situation of several urban universities in the United States, where the surrounding communities deteriorated seriously; on the positive side, however, he referred to the report that fifty presidents of American urban universities had met recently in Washington to discuss how their institutions could help "rebuild the communities of which they are a vital part." The aim of the University Neighborhood Council here would be to "maintain and enhance the quality of life possible in the University area"—before the kinds of situations that have occurred around other urban universities develop here.

Additional objectives of the Council will include these: —to help identify the needs of the University area and to be a forum for discussing related problems and their resolution; (continued on page two)



Music Department Plans Opera Double Bill

The Department of Music of the University of Alberta is hard at work to prepare its annual evening of opera, to be given this week. The fantasy and romance of last year's production of Benjamin Britten's *A Midsummer Night's Dream* gives way in 1979 to broad farce and tragedy in a double bill, Georges Bizet's *Doctor Miracle* and Gian-Carlo Menotti's *The Medium*.

Inside

Procedures for Evaluating Instruction in a University Setting The text of a report prepared by the Committee for the Improvement of Teaching and Learning that was submitted to the Executive Committee of GFC in the fall of 1977 appears as a supplement inside this issue of *Folio*.

Industrial Design A brief report of the Division of Industrial Design with photographs of some recent projects.

Rehearsals and costume fittings for Dr. Miracle; above, Jennifer Scragg, Robert Mast, and Beth Clark, costume designer.

The Medium has become one of the standard works in the contemporary opera repertoire and is, exclusive of *Amahl and the Night Visitors*, possibly Menotti's best known work. Commissioned and first performed by Columbia University in 1946, the opera is in two short acts, blending modern and romantic traditions. *The Medium* tells of Baba, a fake clairvoyant, and the power she

exercises over three paying clients. At length the medium becomes a victim of her own mock seances, as the opera builds to a tragic climax.

Doctor Miracle, the second half of the double bill, is, according to Professor Alan Ord, stage director of the operas, one of the growing number of little known works by well-known composers which have only recently experienced revival. Composed and first performed in 1857, when Bizet was only eighteen years of age, the work is an *opera buffa* in one act, a successful attempt, under the patronage of Jacques Offenbach, to restore to French opera a gaiety and wit which he had found lacking. *Doctor Miracle* is a work in the style of Donizetti's *Don Pasquale* and Rossini's *The Barber of Seville*, and deals with a problem commonly treated in comic opera: how the right girl marries the right man no matter what. The familiar figures of the dashing lover, the blustering father, and the card who turns all events inside out for a happy conclusion, figure prominently in this exuberant, joyful work.

Doctor Miracle and *The Medium* will be performed each evening, 9 and 10 February, in Convocation Hall at 8 p.m. Tickets may be obtained from the Department of Music and at the door.

FOLIO

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All inquiries and correspondence should be directed to:

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Neighborhood Council (continued from page one)

—to refer problems in the area to specialists, community groups, and/or civic and provincial authorities who may be able to help resolve them;
—to contribute actively to planning processes and, especially, to help define planning goals for the area;
—to facilitate liaison between the local residents and agencies on the one hand and the students on the other, many students being residents of the surrounding community, too;
—to help educate the residents of the area and those who come into the area daily to work, study, or receive health care, with respect to the possibilities and responsibilities of those who occupy the area permanently or transiently; and
—to work toward effective and fair representation for the needs and goals of the area in the decision-making circles of the local and provincial governments, and also to work toward a non-exploitive relationship for the area with respect to the large business community, developers, and absentee landlords.

While the University Neighbor-

hood Council is necessarily limited in size, Dr. Card feels that the University community could lend its special areas of expertise to the venture through the University Area Consultative Group. This group is currently composed of eleven members, but could become as large as the number of people who wish to lend their knowledge and abilities to preserving and enhancing the quality of the University neighborhood. The Consultative Group serves as the resource base for the Council, its members helping with those problems best suited to their individual skills.

The kinds of problems the University Neighborhood Council will be considering, with the assistance of the Consultative Group, include:

—local transportation problems;
—the application (or misapplication) of zoning in the University area;
—development goals for the area;
—school, recreation, and community league problems in the area;
—crime trends and security in the area;
—relationship of the University area to the General Plan Bylaw; and
—contributions of the University

and University Hospital staff and students to the quality of life in the University area.

Because so many University staff live near the campus, several people on the Council may be wearing two hats: the President of the Council, for example, is E.L. Jackson, a professor in the Geography Department, who is on the Council as a representative of the Parkallen Community League. The other members of the University Neighborhood Council Executive are: Richard Dué, representing McKernan Community League, Vice-President; James Schovanek, also from McKernan, Secretary-Treasurer; and Fred Engelman, from Garneau and an observer from the AASUA, Lorne Gunter, a resident student from Lister Hall, Tom Pontin, from Belgravia, and Russ Overn, from Queen Alexandra, Directors.

Volunteers from the University who would like to apply their expertise, by way of the Consultative Group, to help preserve and maintain the quality of life in the University area are invited to express their interest, either to Dr. Card, telephone 432-3730, Dr. Jackson, telephone 432-4783, or to Dr. Schovanek, telephone 432-5648. □

Review of Canadian Institute of Ukrainian Studies

When the Institute was established on this campus in 1976, General Faculties Council specified that annual reports should be prepared, and that there should be a full review of the unit during its third year.

Vice-President (Academic) M. Horowitz has appointed the individuals who will constitute the *Review Committee*. The committee would be pleased to hear, by 23 February, from any members of the University community who wish to be heard in connection with this review. Submissions may be written or oral, and will be treated in

confidence.

Please contact any member of the committee: T. Aoki, Department of Secondary Education; B.L. Evans, Department of History; or Jean K. Lauber, Associate Vice-President (Academic) (Chairman of the Committee). □

Introduction to Mental Retardation

The Centre for the Study of Mental Retardation is presenting a lecture-workshop introduction to mental retardation for parents, foster parents, group home workers, volunteer, novice, and non-professional personnel working with the retarded. The program reviews the causes,

characteristics, and classification of mental retardation; learning and development characteristics; the principles of normalization; the medical aspects of mental retardation; behavior management techniques; and programming for growth. In addition, a full-day tour will be made of various community facilities for the retarded.

Evening classes are scheduled for 20, 22, 27 February, and 1, 13, 15, and 22 March. Saturday, 10 March, will be a full-day class, and Wednesday, 21 March, will be spent touring facilities.

The cost of the course is \$20 for individuals and \$30 for married couples. Registration forms and further information can be obtained by calling 432-4439. □

General Faculties Council

The regular monthly meeting of the General Faculties Council was held on Monday, 29 January. The following is a summary report of some of the topics discussed.

New Member

Council received the name of B.L. Scarfe as an elected member of GFC. Dr. Scarfe came to this University in 1977 and currently is Professor and Chairman of Economics.

Evaluation of Instruction

GFC received and considered a report from the Committee for the Improvement of Teaching and Learning (CITL) titled, *Procedures for Evaluating Instruction in a University Setting*. This document was originally submitted to the Executive Committee of GFC on 16 November 1977 and was a response to a directive received from that Committee "... to study and report to General Faculties Council suggested guidelines of criteria for judging the teaching ability of an instructor and ways of applying these guidelines." (Memorandum from the Secretary to the Executive Committee to M.P. Browne, at that time Chairman of CITL.) The Report was discussed at a meeting of the Executive Committee on 21 November 1977 and, subsequently, circulated along with a questionnaire to Faculty executive committees, the Graduate Students' Association, and the Students' Union. Responses from these bodies were, for the most part, received by the CITL by 1 June 1978. The Executive Committee then discussed the Report at its meeting on 15 January 1979 and endorsed the three recommendations of the CITL for transmission to GFC. The recommendations were received as motions at the meeting of GFC on 29 January. The motions, which are as follows, were carried:

1. "That copies of the Report, 'Procedures for Evaluating Instruction in a University Setting' be made available to all teaching personnel for their information."
2. That the greatest possible discussion of the issues in the Report be encouraged at Department level.
3. That since evaluation of instruction is primarily a Faculty responsibility, any decision or recommendation concerning the specifics of such evaluation be left to individual Faculties."

A further motion, as an amended recommendation from the Executive Committee, was also put to Council and carried:

4. "That in view of the fact that the Board-AASUA Agreement (Faculty) specifies that teaching shall be carefully assessed for the purpose of salary and promotion reviews, each Faculty shall be asked to advise GFC by means of an April 30 1979 interim report and an October 1 1979 final report, of the current methods used for assessing teaching and any changes to these methods being contemplated."

In view of these several recommendations, the Office of Community Relations has published the Report as a supplement to this week's *Folio*. Should there be questions concerning the Report, they should be addressed to Dr. D. Otto, Secretary to the CITL, 1-16 University Hall.

Dentistry

Council approved a request from the Faculty of Dentistry that the name of the Department of Community Dentistry and Manpower Development be changed to the Department of Dental Health Care. The new name, according to Dean Thompson, will "better reflect the scope of the Department in the education of personnel for 'Dental Health Care' delivery systems," which constitutes the major thrust of the Department.

Radiation Protection

Toward the end of the meeting on 29 January, Council was asked to consider proposals emanating from the Equal Opportunities Committee (EOC) concerning the protection of female employees from hazardous doses of radiation at this University.

Concern about this issue was raised initially by the EOC by a statement of policy published in *Folio* (21 September 1978) which set out a recent amendment to the provincial Radiation Protection Act. In addition to that amendment, the material provided by the University's Radiation Control Officer, S. Hunt, included a sample waiver statement to which a pregnant, or potentially pregnant, woman could subscribe should she wish to continue her employment—or gain employment—in an area where ionizing radiation is present. The waiver form acknowledges that such a woman realizes the "risks involved in continuing to work with radioactive materials" and releases the University from any liability "should harm result from continued work with radioactive material."

The Equal Opportunities Committee, however, in a letter to the Secretary of GFC from its chairman, A. Nitecki, expressed concern that the policy statement was inadequate. Although, according to the statement, the Radioisotope User Permit Holder is requested to "attempt to provide the female with work that is not considered hazardous to her health or that of her child" and, in the event that such accommodation is not possible, "to recommend an early maternity leave," the EOC was of the opinion that the policy statement "may have an opposite effect to the one intended (i.e. to protect the child)." The EOC, therefore made three recommendations to the Executive Committee of GFC for its consideration at the 15 January meeting to the effect that:

1. "women of reproductive age must be told what the risks are;
2. "the University as employer must be protected against all legal action asserting liability; and that

3. in order to ensure that a woman who becomes pregnant will take *immediate* steps to protect herself and her unborn child (or, better still, that a woman who intends pregnancy will take such steps), *the University as employer should guarantee for such an employee transfer to a position of equal pay and status, outside the risk area, during her pregnancy.*"

The EOC acknowledged that the policy statement referred to above is adequate with respect to the first two recommendations but added the third recommendation on the grounds that "a woman, who really wants and needs to keep her job, may be tempted at first to conceal" her pregnancy to keep her job. It was pointed out that the greatest risk to the developing embryo from exposure to radioactive material comes in the first trimester. The Executive Committee passed a motion on 15 January to endorse the first two recommendations but not to endorse the third.

Council considered the recommendations of the EOC at some length and many varying opinions were expressed. It was suggested that ionizing radiation was only one of many sources of possible injury to employees at this University and that consideration should be given to other possible hazards, for example, animal borne diseases and the absorption of potentially harmful drugs and chemicals. Although, there was some apparent disagreement about the risks involved in working with radioactive materials at this institution and implicit doubt about the validity of the legislated maximum permissible doses for women of reproductive age, the discussion eventually settled on the financial implications of the third recommendation proposed by the EOC. Professor Leitch, Vice-President (Finance and Administration), said that, although the University is generally regarded as an "enlightened" employer, the guarantee of equal pay and status or early paid maternity leave was not financially feasible. (According to information supplied to Dr.

Lauber, Associate Vice-President (Academic), some twenty employees working in areas where there are radioactive materials left the University because of pregnancy, during the last year.)

The issue was left unresolved and referred to the Executive Committee of GFC so that an appropriate body may consider it in greater depth.

University Priorities Committee

In the *Folio* of 1 February 1979, a mistake was made in the record of GFC's motion concerning Recommendation 7 of the University Priorities Committee Final Report. The recommendation adopted by GFC should have read as follows:

"That the Board, in cooperation with GFC, undertake a study of the rationale for quotas, criteria to be used in establishing quota size, and the process by which changes in quota size are planned and instituted with a view to changing the circumstances which resulted in the imposition of quotas where limited resources were the primary reason for the imposition of quotas." □

Queen Elizabeth Scholarships in Canadian Studies

On 3 August Queen Elizabeth visited the Alberta Legislature Building, and Premier Lougheed made a presentation of twenty undergraduate scholarships to commemorate her visit. Ten of the scholarships, valued at \$1,000 each, were designated for students at this University.

The scholarships are to be awarded annually to outstanding Canadian students who are entering their final year of any program with a major emphasis on Canadian society and culture, provided their academic records are otherwise satisfactory in the year of the award. For further information and applications contact the Chairman, Canadian Studies Committee. Applications must be made by 1 May. □

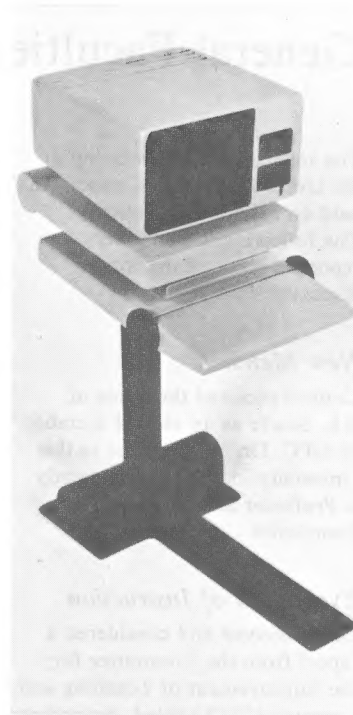
Industrial Design

The industrial design scene in Canada is becoming increasingly more defined courtesy of such sources of impetus as this University's Division of Industrial Design. The Division, a component of the Department of Art and Design, is rapidly realizing its potential, according to Jacques Giard, coordinator of the Division. This has come about largely through increased emphasis on the relationship between the design program and the practical needs of the profession. Since his appointment as coordinator two and one-half years ago, Professor Giard has changed the thrust of the program to allow function to take precedence over form.

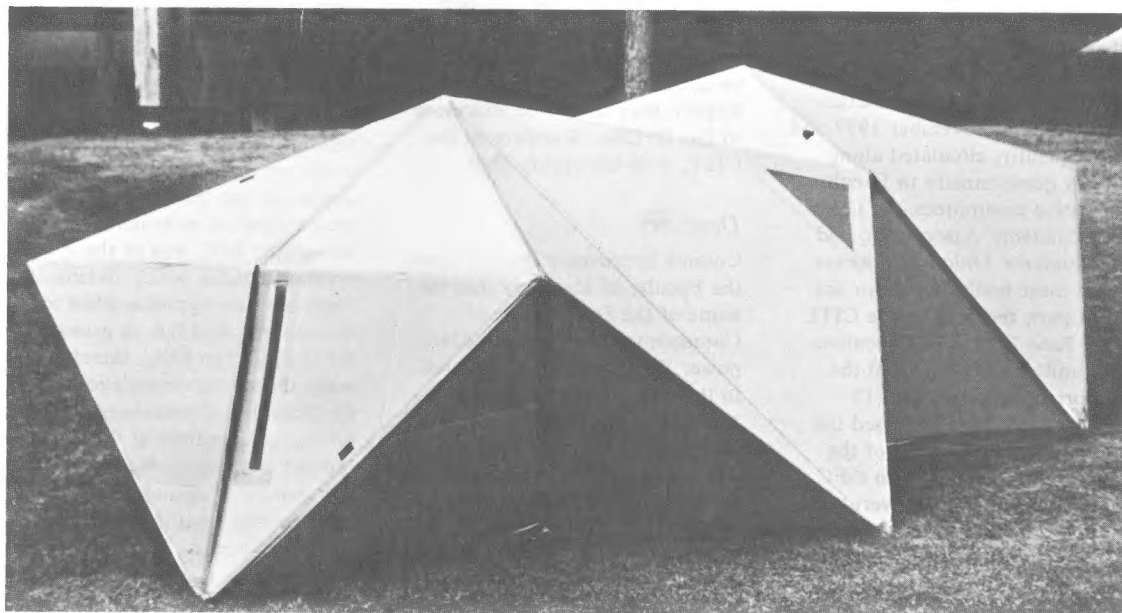
"Without removing the element of creativity, we went from the theoretical aspect to one of relating the program to what the profession wants," he explained. The Division, located in Art Workshop I, stresses the user element. Products can be simple, functional, and well built and not be expensive, said Professor Giard. It is the aim of his Division to better meet the needs of the user by graduating men and women who are well versed in product design. The first year of the four year program leading to

the Degree of Bachelor of Fine Arts consists mainly of problem solving exercises and general training; during the other three years, students can branch out and give rein to projects which are of particular interest to them. One enterprising student designed a tractor cab which rotates and can face completely backwards. Two years ago, some students were hired by the Junior League of Edmonton to assist in the development of a toy lending library. They designed shelving in the form of various plastic bins which could hold all manner of toys and which could slide into the back of a truck with minimum effort. A wind generator for use on a sailing vessel, appliance testers, and furniture design and construction are other projects which students have completed with verve and gratification.

A favorite project of Professor Giard's is the Design Awareness Study Trip to Europe. It is a credit course offered by the Department of Art and Design during Spring Session. The course came into being last year and dealt with the pragmatic qualities of contemporary industrial, graphic and interior design in West Germany, Britain, and



Above a prototype of a computer housing for a free-standing, small area unit. Although no revision was made on the basic computer mechanism, the revised housing allows for ease in maintenance and accessibility in small office or home. Below, a project for fast-erecting shelters had as its criteria - ease in storage; area to be covered; and a minimum of instruction and man-power for assembly.



Denmark. This year's course has the same theme but different locales, namely Italy, Switzerland, and West Germany. Students who are accepted into the three week course will be exposed to the gamut of graphic design inherent in Milan, Zurich, Munich, and Stuttgart.

The industrial design division has woodworking and metalworking equipment, a photography

A detail of a re-designed car-top-carrier with emphasis on stability and flexibility in all dimensions.

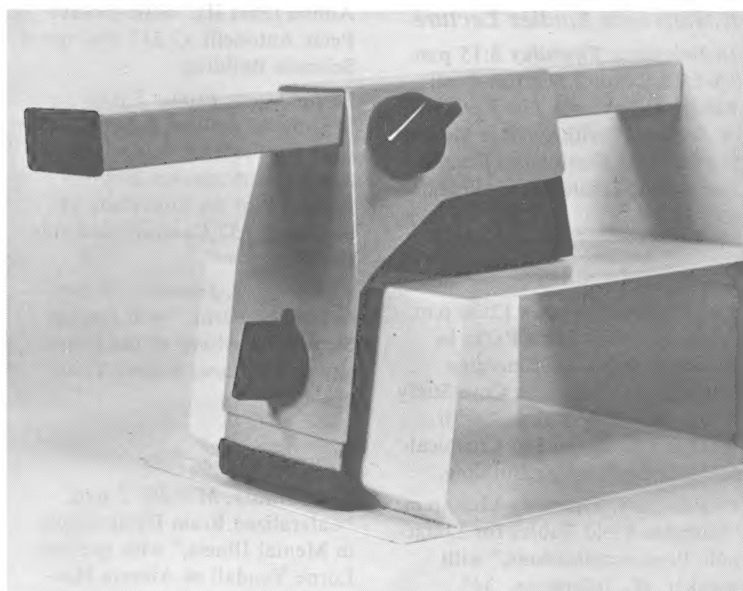
studio, a spray painting room, drawing areas, a classroom and a resource centre which contains a variety of printed materials, and a newly installed computer terminal.

There are three full-time staff members, one sessional staff member, and two technicians. A limited enrolment of sixty students is in effect and was met for the 1978-79 academic year. The industrial design populace includes one student from Iran, one from China, and another from Mexico.

Students have enhanced the Division's reputation by their participation in the Canadian



Students engage in annual floatation device project using only brown paper, varnish and one quarter inch pine.



entered various fields. For example, four students graduated last year; two received scholarships to study at Royal College in London, one gained employment with a San Francisco design consulting firm, and one is with a leading furniture company in Ontario.

One development which will loom large on the Division's horizon is the prospective establishment of a Bachelor of Design Degree Program. The program, if approved, would concentrate both on industrial design and on visual communication design over a study period of four years.

In the meantime, the Division's staff and students are diligently pursuing what Prime Minister Trudeau has stated must be one of Canada's national goals—the attainment of design excellence.

The 1976 Zinc die casting competition award was won by Herb Bentz for his portable drill guide.

Zinc Die-Casting Competition which has been held in each of the past three years but which, unfortunately, will not be run this year. The Division boasts one first and two third place finishes and one honorable mention.

Graduates of the program have

Last year's zinc die casting competition focused on marine products. Below is a submission for a 'Bilge Alarm.'



Specialized studio facilities have been designed for Senior students in the program.



coming events

Listings must reach the Editor by 9 a.m. on the Thursday prior to publication. Written notification is necessary. Listings should be sent to 423 Athabasca Hall.

Music

Department of Music

9, 10 February 8 p.m. *Doctor Miracle*, an opera by Georges Bizet, and *The Medium* by Gian Carlo Menotti. Convocation Hall. Tickets available from the Department of Music, 3-82 Fine Arts Building, and at the door.

16 February, Friday 5 p.m. Liane Gayler, flautist, will perform. Convocation Hall. No admission charge.

17 February, Saturday. 8 p.m. The University of Alberta String Quartet will perform works by Mozart, Schubert, and Kodaly. Convocation Hall. No admission charge.

18 February, Sunday. 8 p.m. The University of Alberta Concert Choir will perform. Tickets available from the Department of Music, 3-82 Fine Arts Building, and at the door.

Latitude 53

18 February, Sunday 2:30 p.m. Works by student composers of Grant MacEwan Community College, The University of Alberta, and Alberta College will be performed. For further information telephone 423-3126.

Edmonton Chamber Music Society

14 February, Wednesday. 8 p.m. The Edmonton Chamber Music Society presents Huguette Tourangeau, mezzo soprano, and Alexandra Munn, piano, in con-

cert. Admission is by season membership only. Memberships are available at the SU Box Office (HUB Mall), Canadiana Gifts, and by mail from the Society.

Edmonton Recorder Society

9 February, Friday 8 p.m. Edmonton Recorder Society will meet at the Southwest Cultural Centre, 115 Street at 74 Avenue. For further information telephone 434-0091.

Jubilee Auditorium

8 February, Thursday 8 p.m. Princess Patricia's Canadian Light Infantry Band will perform. Tickets at the Bay.

9, 10 February 8:30 p.m. Byron Janis, pianist, will perform with the Edmonton Symphony Orchestra. Tickets at the Bay and at the Edmonton Symphony office.

12, 13 February 8 p.m. Alberta Ballet Company will perform. Tickets at the Bay.

14, 15 February 8:30 p.m. Carol Lawrence will perform with the Edmonton Symphony Orchestra. Tickets at the Bay and at the Edmonton Symphony office.

16 February, Friday 8 p.m. Edmonton Overture Concerts presents Ronald Turini. Tickets at the Bay

Students' Union Theatre

8, 9, 10 February 8 p.m. The University of Alberta Orchestral Creative Dance Club presents "Orchestral Dance Motif '79." Tickets at SU Box Office (HUB Mall) and from members of the club.

11 February, Sunday 3 p.m. The Ukrainian National Federation presents Roman, pianist, and Suzanne, soprano, Rudnytsky in concert. Tickets \$6 at Heritage Trust, Heritage Office, and from members of the executive.

South Side Folk Club

17 February, Saturday, 8 p.m. The South Side Folk Club presents Ron Knowlton of Calgary performing British contemporary folk music; and Derek Elliot of Edmonton. Orange Hall, 104

Street at 84 Avenue. For ticket reservations telephone 475-1042.

Lectures and Seminars

Poetry Reading

15 February, Thursday 12:30 p.m. Stephen Scobie, Douglas Barbour, Oliver Botar, and Lars Bolan will read their poetry in the second of a series of readings. Students' Union Art Gallery.

Guild for Mediaeval and Renaissance Studies Lecture

15 February, Thursday 8:15 p.m. "A 15th Century Scottish Poet: Robert Henryson's *The Testament of Cresseid*," with speaker Stephen Scobie. 3-19 Humanities Centre. For further information telephone 432-5132.

Forestry Lectures

8 February, Thursday 12:30 p.m. "National Wilderness Parks in Northern Canada—Emerging Management Issues: A Case Study of the Northern Yukon," with speaker L.J. Zivot. 345 Chemical-Mineral Engineering Building.

15 February, Thursday 12:30 p.m. "Variable Yield Tables for Lodgepole Pine: Applications," with speaker W. Johnstone. 345 Chemical-Mineral Engineering Building.

Science Dining Club Lecture

13 February, Tuesday 6 p.m. "Sources of the Age of Mammals in North America," with speaker R.C. Fox. Reservations should be made by 12 February, telephone 432-4757.

Comparative Literature Lecture

13 February, Tuesday 3:30 p.m. "Critical Methodology: Who Needs It?" with speaker Timothy Stewart. Senate Chamber, Arts Building.

Physics Lecture

13 February, Tuesday 3:30 p.m. "The Tale of Two Atoms," with

speaker P.L. Taylor of Case Western Reserve University. V120 Physics Building.

Merrill Wolfe Memorial Lecture

11 February, Sunday 2 p.m. "Canadian People: Canadian Problems," with speaker Justice Thomas R. Berger. Social Room, Jubilee Auditorium.

Mathematics Lectures

8 February, Thursday 2 p.m. "Path Curves of Projective Geometry and the Work of L. Edwards on Plant Bud Forms à la C. Almon (Part II)," with speaker Peter Antonelli. G 217 Biological Sciences Building.

16 February, Friday 3 p.m. "Plant and Animal Forms and the Path Curves of F. Klein and S. Lie," with speaker Stephen Eberhard of the University of Montana. 657 Central Academic Building.

18 February, Sunday 3:30 p.m. "Fields of Form," with speaker Stephen Eberhard of the University of Montana. Espace Tour-nesol.

Neurology Lecture

12 February, Monday 2 p.m. "Lateralized Brain Dysfunction in Mental Illness," with speaker Lorne Yeudall of Alberta Hospital. 14-6 Tory Building.

Division of East European Studies Lecture

13 February, Tuesday 3:30 p.m. "The Socialist Conspiracy in Cracow: Polish Social Revolutionaries in the 1870s and 1880s," with speaker J.P. Himka. 311 Athabasca Hall.

Population Research Laboratory Lecture

15 February, Thursday 7:30 p.m. "Rationality and Response to Crime," with speaker Gwynn Nettler. 129 Education Building.

Zoology Lectures

9 February, Friday 4 p.m. "The Evolution of Leks," with speaker J.W. Bradbury of the University

of California at San Diego. 345 Agricultural Building.
 16 February, Friday 4 p.m.
 "Competition and Communication in Hermit Crabs," with speaker B.A. Hazlett of the University of Michigan. CW 410 Biological Sciences Building.

Dentistry Lectures

8 February, Thursday 3 p.m.
 "Latest African Discoveries on Hominid Evolution: From Sterkfontein to Leitoilil," with speaker Phillip V. Tobias of the University of Witwatersrand, Johannesburg. 1-28 Tory Building.
 9 February, Friday 9 a.m. "Big Jaws and Nutcrackers: Dental Form and Function in Man's Fossil Ancestors," with speaker Phillip V. Tobias of the University of Witwatersrand, Johannesburg. 4069 Dentistry/Pharmacy Centre.

9 February, Friday 12 noon.
 "Two and a Quarter Million Years Ago: A Moment of Explosive Evolution in the Genesis of Man," with speaker Phillip V. Tobias of the University of Witwatersrand, Johannesburg. 2104 Dentistry/Pharmacy Centre.

Art and Design Lecture

9 February, Friday 2:30 p.m.
 Jonathan Knowlton will present a slide lecture on his works. 2-20 Fine Arts Centre.

Classics Seminar

15 February, Thursday, 4 p.m.
 "Wire Making in the Roman World," with speaker T. Rossiter. 1-8 Humanities Centre.

Entomology Lectures

15 February, Thursday 4:30 p.m.
 "Glaciation and Climate in the Canadian High Arctic," with speaker J.H. England. 62 Athabasca Hall Annex.

Canada in the Western World Lecture

14 February, Wednesday 12:15 p.m. "Choosing to Have a Child," with speaker Lyle Larson. Alberta College.

Student Legal Services Lecture

8, 15 February 8 p.m. "Women

and the Criminal Law." Music Room, Edmonton Public Library. For further information, telephone 432-2226.

Botany Lecture

14 February, Wednesday 4:30 p.m.
 "A New Species of *Psilophyton* from the Devonian of Northern New Brunswick," with speaker Jeff Doran. M-149 Biological Sciences Building.

Marriage Preparation Seminar

The second in a series of 8 evenings, sponsored by the U of A Chaplains, will be held in the SUB Meditation Room at 7:30 p.m., Tuesday, 6 February. The topic will be "Dynamics of Communication." For more information or registration, call Barbara Munro, 432-4621.

Films

Citadel National Film Theatre

8 February, Thursday 7:30 p.m. and 9:30 p.m. *Citizen Kane* (United States, 1941).

9 February, Friday 7:30 p.m. and 9:40 p.m. *The Private Life of Sherlock Holmes* (United States, 1970).

11 February, Sunday 8 p.m. *Une Femme Douce* (France, 1969).

14, 15 February 7:30 p.m.
Alexander Nevsky (USSR, 1938). 9:15 p.m. *The Childhood of Maxim Gorky* (USSR, 1938).

16 February, Friday 7:30 p.m. and 9:35 p.m. *Woman of the Dunes* (Japan, 1964).

18 February, Sunday 8 p.m.
Woman of the Dunes (Japan, 1964)

Cinematheque 16

8, 9 February 7:30 p.m. *The Wild One* (United States, 1953).

11 February, Sunday 2 p.m. *The Salamander* (France, 1971).

15, 16 February 7:30 p.m. *Viva Zapata* (United States, 1952).

18 February, Sunday. *Little Big Man* (United States, 1975). For ticket information contact Cinematheque 16, telephone 437-3863.

Provincial Museum

11 February, Sunday 4 p.m. and 7 p.m. W.C. Fields in *The Man on the Flying Trapeze* (United States, 1935).

14 February, Wednesday 7 p.m.
The Winslow Boy (Great Britain, 1950).

18 February, Sunday 4 p.m. and 7 p.m. W.C. Fields and Mae West in *My Little Chickadee* (United States, 1940).

Theatre

Citadel Theatre

From 7 February. *The Chairs* and *The New Tenant* by Eugene Ionesco.

To 11 February. *Cause Célèbre* by Sir Terence Rattigan. For ticket information and show times, telephone 425-1820.

Studio Theatre

From 8 February. *Good News* by B.G. DeSylva and Laurence Schwab; music by Ray Henderson. Corbett Hall. For ticket information and show times, telephone 432-2325.

Northern Light Theatre

Continuing. *Take Me Where the Water's Warm* by James DeFelice. For ticket information and show times, telephone 429-3110.

Exhibitions

University Art Gallery and Museum

Continuing. Two portfolios of prints by Ansel Adams and a portfolio of prints by Brett Weston.

Continuing. An exhibition of prints by Bob Chaplin and photographs by Ivan Osborne.

From 1 February. "Mr. Jackson's Mushrooms," an exhibition of drawings and watercolors of mushrooms.

Students' Union Art Gallery

To 11 February. An exhibition of photography and painting by senior students of the Banff School of Fine Arts.

Edmonton Art Gallery

Continuing. "Art of the Dene," an exhibition of native Indian works produced by the Dene people of the Northwest Territories.

To 11 February. "La Belle Anglaise/The Prints of James Tissot," an exhibition of prints by the turn-of-the-century French artist.

Continuing. An exhibition of photographs by Eleanor Lazare.

From 15 February. An exhibition of drawings by Jack Weldon Humphrey.

From 16 February. An exhibition of paintings and sculpture by Otto Rogers; and an exhibition of silk screen prints by George Weber.

Points of Interest

Campus Observatory

Friday Evenings For information and tour reservations telephone 432-2325.

Tropical Greenhouse

The Plant Science Tropical Display Greenhouse, located just south of the Agriculture Building, is available for public viewing. The Greenhouse is open from 9 a.m. until 3:30 p.m. weekdays and from 2 p.m. to 4 p.m. Sundays. Guided tours can be arranged on weekdays for groups of five or more.

service
information

Notices

Notices must reach the Editor by 9 a.m. on the Thursday prior to publication. Written notification is necessary. Notices should be sent to 423 Athabasca Hall.

Cross Country Ski Club

A local cross country ski club is interested in new members. The group's activities include in-town ski trips, a trip to Jasper, and social activities. For further information contact M. Rousseau, telephone 433-7565 (days) or 433-6663 (evenings).

Staff Bonspiel

The annual Faculty-Staff Bonspiel will be held in the Students' Union Curling Rink during the spring reading week, 1, 2, and 3 March. There will be three events, three games guaranteed, and an entry fee of \$28. There will be a maximum of thirty-two rinks. The deadline for entries is 23 February. Further information and entry forms are available from Mary Jane Davies, Department of Plant Science, 869 General Services Building, telephone 432-4265.

Tennis Program

Due to the interest in the University's Tennis Program at Coronation Park Indoor Tennis Club, the Department of Athletic Services is pleased to announce a special rental fee. All students, staff, and faculty presenting proper University identification will be eligible to rent court time between 8 a.m. and 5 p.m., Monday through Friday, at \$6 per court/hour. This is twenty-five percent below the charge to the public.

GFC Standing Committees 1979

Please note that the references to staff vacancies on the Academic Development Committee and University Planning Committee in the *Folio* of 25 January are in error. There are, in fact, no vacancies in UPC and only one (for a member of the teaching staff) in ADC. In addition, there are four vacancies for faculty members on the Campus Development Committee.

For further information, please contact the Secretary of the Nominating Committee, 2-1 University Hall,, telephone 432-4715.

Piano Student Needed

The Department of Music requires a piano student, approximately 10 to 14 years of age, who is in grade 4 to 6 (Western Board or Royal Conservatory of Toronto or equivalent). Free lessons will be supplied by an advanced piano major student under pedagogical tutelage of a professor. Please contact Professor E. Lejano, telephone 432-4426.

Worship Services

The Chaplains of the University hold worship services on campus for various denominations each week. The services are as follows:

Christian Reformed Church—Sundays at 10:30 a.m. and Wednesdays at 5 p.m. in the Meditation Room of the Students' Union Building.

Lutheran Church—Sunday Worship at 10:30 a.m. in 142 Students' Union

Building and Tuesday Vespers at 8:30 p.m. at LSM Centre, 11122 86 Avenue.

Catholic Church—Sunday Mass at 9:30 a.m., 11 a.m., 4:30 p.m., and 8 p.m. and Saturdays at 4:30 p.m. in St. Joseph's Chapel on campus.

University Parish—(Anglican, United, Presbyterian) Thursday Worship at 6 p.m. and Tuesday Lunch at 12 p.m. in the Meditation Room, Students' Union Building.

Christian Science Church—Organization Meeting on Tuesday at 2 p.m. in the Meditation Room, Students' Union Building.

For further information call Barbara Munro, Secretary, Chaplains' Association, telephone 432-4621.

Open Debating Tournament

The University of Alberta Debating Society will hold its annual Open Tournament on 10 February. Anyone wishing to participate as entrants or judges are welcome. For further information contact Joanne, telephone 435-0825, or Norman, telephone 455-6067.

French Courses

The School of The Alliance Française, a non-profit organization, is conducting evening French courses for adults. There are still openings in the beginner's class. For further information, telephone 468-3414.

Tree Starter Kits

The Forest Science students will be selling "Tree Starter Kits" on the following dates and at the following locations:

10 February—Centennial Mall
15 February—HUB Mall
16 February—HUB Mall
17 February—Southgate and Northtown Malls.
24 February—Londonderry Mall
10 March—Northtown and Centennial Malls.

The proceeds from the sale of the tree starter kits will help the students in the Forestry Program offset the costs of the six-week field course they are required to attend at the end of the second year of their program.

Environmental Impact Studies

The Library of the Boreal Institute for Northern Studies has recently received depository copies of several important pipeline impact statements and arctic petroleum environmental studies:

1. *Environmental impact statement for the Alaska Highway Gas Pipeline Project in the Yukon*—the statement, a summary volume and twenty-eight annex reports. Courtesy of Foothills Pipe Lines (South Yukon) Ltd.

2. *Update of environmental and socio-economic study for Foothills Pipe Lines (North B.C.) Ltd.—Northern gas pipeline hearings*—a summary, an environmental atlas, and four volumes. Courtesy of Westcoast Transmission Company Limited.

3. *APOA reports on microfiche*—to date fifty-eight reports have been received and more will become available on their publication. The reports are studies on the environmental hazards of petroleum exploration in the Arctic. Courtesy of the Arctic Petroleum Operators' Association.

These items will be restricted to use in the Institute library. The library is located in CW-401 Biological Sciences Building and is open from 8 a.m. to 9 p.m. from Monday to Friday.

Altrusa Grants-in-Aid

The Altrusa International Foundation has grants from \$350 to \$1,000 available for qualified female graduate students from Asia, Africa, Latin America, the Middle East, or New Zealand. Altrusa wants to assist such students in finishing their work in their chosen vocations. For further information and application forms contact the Office of Student Affairs, 225 Athabasca Hall.

Visitor Parking

Staff members are reminded that advance parking arrangements should be made with Parking Services for persons invited to the University as guest speakers or for other purposes related to departmental functions. This cooperation is necessary so that they may park their vehicles on the campus in accordance with the Traffic and Parking Regulations of the University.

Singles on Campus

Singles on Campus is a social organization dedicated to providing entertaining events for its members who are single, divorced, widowed, or separated. The group meets for informal parties and excursions which are planned by the members, and also has seminars and speakers from time to time. Those people who would like to become members should call Audrey Brooks for information about the club and future events, telephone 487-9195.

Research Grants

Granting Agencies:

Application Deadlines

This list of deadline dates for submissions to granting agencies for research funds, exchange programs, and travel grants is published every month in *Folio*. To allow sufficient time for processing, all applications should reach the Research Grants and Contracts Office at least ten days before the deadline date. Where other University resources are involved, the time may be much longer than ten days and such applications should be submitted well in advance. An extra copy of the application should be provided for the Research Grants and Contracts Office.

Further information may be obtained by consulting the *Calendar of Granting Agencies for Research Funds, Exchange*

Programs, and Travel Grants, which is available in the offices of Deans, Directors of Institutes and Centres, and the Department Chairmen, or by telephoning the Research Grants and Contracts Office, 432-5360. Note: Although the *Calendar* is updated on a continuous basis, the following information is subject to change without notice. If staff members have advance information on forthcoming changes, the Research Grants and Contracts Office would appreciate being advised. Code: (R) Research Funds; (E) Exchange programs; (T) Travel grants.

Granting Agency	Deadline Date
Banting Research Foundation (R)	1 Mar.
Calendar source number 40	
Canada Council—	
Explorations Program (R)	1 Mar.
Calendar source number 61	1 June
Canadian Diabetic Association (R)	1 Dec.
Calendar source number 80	15 Mar.
Dame Lillian Penson Memorial Fund (T)	15 Sept.
Calendar source number 340	1 Mar.
U. S. Department of Health, Education, and Welfare (R)	
Calendar source number 420	
New and Supplemental	1 Mar.
	1 July
	1 Nov.
Renewals	1 Feb.
	1 June
	1 Oct.

Non-Credit Courses

Faculty of Extension

The courses listed below are offered under the auspices of the Faculty of Extension. Registrations may be made and information concerning the instructors and contents of the courses may be acquired at 228 Corbett Hall or by telephoning the number at the end of each listing.

Computer-Assisted Publishing with Textform

Beginning: 26 March. Duration: Five Mondays. Time: 7 p.m. to 9 p.m. Fee: \$40. Telephone: 432-3037.

Verbal Arts of Presentation

Beginning: 22 February. Duration: Two days. Fee: \$100. Telephone: 432-5056.

Film Acquisitions

The following is a listing of recent acquisitions. Each acquisition is listed by title, producer, date of release, format, duration, and location. For further information, telephone 432-3096.

Visual Guide: Examination of the Abdomen
B. Bates, Univ. of Rochester, 1974
¾ inch videocassette, 9 minutes

2-54 Medical Sciences Building
Describes examination of abdomen, particularly liver, spleen, kidneys, and aortic pulsations.

Visual Guide: Examination of the Heart
B. Bates, Univ. of Rochester, 1974
¾ inch videocassette, 5 minutes
2-54 Medical Sciences Building
Gives instructions on how and what to look for in heart examination, specifically procedures for identifying mitral and aortic murmurs.

Visual Guide: Examination of the Musculoskeletal System
B. Bates, Univ. of Rochester, 1974
¾ inch videocassette, 16 minutes
2-54 Medical Sciences Building
Explains musculoskeletal system on a symptomatic patient, warning of abnormalities.

Self-Learning Series: Respiratory Failure
American College of Physicians, 1976 microfiche, audiocassette, and text, 3 hours
2-54 Medical Sciences Building
Describes pathophysiology of respiratory insufficiency and respiratory failure; provides basic management for patient with frank respiratory failure. Presents controlled oxygen therapy and mechanical ventilation.

Self-Learning Series: Shock
American College of Physicians, 1977 microfiche, audiocassette, and text, 3 hours
2-54 Medical Sciences Building
Presents how to recognize and manage shock problems regardless of their causes and explains the importance of drugs in shock management.

Self-Learning Series: Transient Ischemic Attacks
American College of Physicians, 1977 microfiche, audiocassette, and text, 3 hours
2-54 Medical Sciences Building
Describes transient ischemic attacks (TIA) as episodes of focal neurologic deficit with abrupt onset and rapid resolution often associated with atherosclerotic vascular disease.

Self-Learning Series: Headache: Diagnosis, Mechanisms, and Treatment Part 1 and 2
American College of Physicians, 1977 microfiche, audiocassette, and text, 3 hours
2-54 Medical Sciences Building
Part one describes the general approach to the migraine headache patient for diagnosis and management. Part two stresses differential diagnosis and management in common headaches.

Self-Learning Series: Hyperlipidemia
American College of Physicians, 1976 microfiche, audiocassette, and text, 3 hours
2-54 Medical Sciences Building
Defines hyperlipidemia and outlines the pathophysiology in various forms. Gives clinical situation often associated with

elevated lipids and shows their relation to hyperlipidemia.

Self-Learning Series: Cardiac Arrhythmias I: Atrial Arrhythmias
American College of Physicians, 1978 microfiche, audiocassette, text, 3 hours
2-54 Medical Sciences Building
Describes the diagnosis and treatment of cardiac rhythm disorders. Part 1 reviews some basic electrophysiology: a useful classification of arrhythmias and a practical method of approaching arrhythmia diagnosis. Part 2 reviews atrial tachycardia, fibrillation, and flutter, emphasizing circumstances in which aberrant ventricular conduction may make diagnosis of these rhythms difficult.

Self-Learning Series: Diagnosis and Treatment of External Eye Problems
American College of Physicians, 1977 microfiche, audiocassette, and text, 3 hours
2-54 Medical Sciences Building
Describes the basic skills necessary to diagnose, initially manage, and approach external eye problems. Specific problems covered are red eye, chemical burns, hyphema, foreign bodies, ultraviolet keratitis, orbital fractures, corneal abrasions, and lid lacerations.

Topics in Aging: Highlights of the 33rd Annual Meeting of the American Geriatrics Society
Sandoz Pharmaceuticals, 1977 audiocassette, 60 minutes
2-54 Medical Sciences Building
This cassette reports on the 33rd Annual Meeting of the American Geriatrics Society.

Topics in Aging: Sexuality and Aging
Sandoz Pharmaceuticals, 1974 audiocassette, 60 minutes
2-54 Medical Sciences Building
This audiocassette presents the highlights of a session on aging and sexuality presented at the Annual Meeting of the American Geriatrics Society in Toronto, Ontario.

Self-Learning Series: Blood Component Therapy
American College of Physicians, 1977 microfiche, audiocassette, and text, 3 hours
2-54 Medical Sciences Building
Shows that the success of blood component therapy depends upon the physicians' ability to identify specific physiologic changes at the bedside, to order and interpret laboratory coagulation tests, and, through knowledge of product availability and the characteristics of the individual blood components, to select the appropriate component.

Topics in Aging: Highlights of the 32nd Annual Meeting of the American Geriatrics Society
Sandoz Pharmaceuticals, 1975 audiocassette, 60 minutes
2-54 Medical Sciences Building
Various topics of discussions held at the 32nd Annual Meeting.

Topics in Aging: Communication Problems with Aged Patients
Sandoz Pharmaceuticals, 1975 audiocassette, 60 minutes
2-54 Medical Sciences Building
In this project, different types of ambulatory, aging patients were selected and then interviewed in surroundings familiar to them. In selected portions of the interviews, these vignettes demonstrate some of the patients' confusion and misunderstanding and their inability to follow treatment programs outlined by their physicians.

Visual Guide: Special Procedures of the Pediatric Physical Exam
B. Bates, Univ. of Rochester, 1974
¾ inch videocassette, 10 minutes
2-54 Medical Sciences Building
Describes special techniques of examining the child, including effective use of parent. Illustrates use of flush technique to determine approximate blood pressure.

Topics in Aging: Where Does Life Begin?
Sandoz Pharmaceuticals, 1974 audiocassette, 60 minutes
2-54 Medical Sciences Building
A panel discussion on the chronological, psychological, physiological, and sociological aspects of aging moderated by Frederick C. Swartz, MD, Chairman, AMA Committee on Aging.

A Family Affair: Core Drama
University of Toronto, 1976, Jean Wilson
¾ inch videocassette, 17 minutes
2-54 Medical Sciences Building
This program is a dramatization of a multi-problem family crisis.

A Family Affair: Coping
University of Toronto, 1976, Jean Wilson
¾ inch videocassette, 20 minutes
2-54 Medical Sciences Building
A social worker and public health nurse discuss the mother's problems, the family unit, and the possible need for family counselling.

Positions Vacant

To obtain further information about the positions listed below please contact the Canada Employment Office, 4th Floor, Students' Union Building, telephone 432-4291.

Atomic Energy of Canada Research Company

The Atomic Energy of Canada Research Company requires a *Mechanical/Chemical Engineering Analyst*, a *Computer Systems Analyst*, and a *Reactor Core Analyst*. These positions are open at the Whiteshell Nuclear Research Establishment in Pinawa, Manitoba.

Summer School Teaching Vacancies

Carleton University has openings for

sessional lecturers during the upcoming summer school term. The sessional lectureships are available in the disciplines of Philosophy and Geography.

Association of Commonwealth Universities Secretary General

The Council of the Association invites applications from graduates, preferably with experience of academic and administrative work in the Commonwealth, for appointment as successor to Sir Hugh Springer, KCMG, who retires in September 1980. The members of the Association are universities of the Commonwealth, and the Secretary General's duties will include visits to and contact with university institutions in the Commonwealth.

The annual salary is subject to negotiation, but is not less than £20,000. Superannuation is available under existing FSSU arrangements.

Further particulars of the post are available from the Chairman of the Association, Dr. J. Steven Watson, Principal of the University of St. Andrews, College Gate, North Street, St. Andrews, Scotland, KY16 9AJ. Applications should be lodged by 31 March.

Professional Officer (Electrical Engineer)

Required for the Department of Technical Services to consult in the application of computers, and interface equipment and data acquisition systems, particularly as they apply to building monitoring and control.

Qualified applicants will be Electrical Engineers with experience in the application of microprocessors (specifically the 8080). Familiarity with DEC 1134 computers is desirable.

Starting salary from \$17,500 per annum commensurate with education and experience. The University offers a comprehensive employee benefits package including a dental plan.

Interested persons should apply by comprehensive résumé to: The Coordinator, Department of Technical Services, Room 6-29 Mechanical Engineering Building, University of Alberta, Edmonton, Alberta, T6G 2G8.

Employee Relations Officer

Required for the Department of Personnel Services and Staff Relations to assist in the administration of the collective agreement with emphasis on the dispute resolution procedures for a bargaining unit of 3,600 employees in a diverse academic environment. Some of the specific duties will be:

- To assist and advise departmental administrators in resolving employee/ employer relations complaints and grievances
- To research and prepare briefs for presentation in the adjudication and arbitration process
- To investigate and resolve alleged unfair labor practices
- To assist in the preparation of material for collective bargaining

Qualified applicants should have a university degree or considerable course work in personnel administration and labor relations with a minimum of 3 years experience in administering a collective agreement. A good working knowledge of current labor legislation and adjudication processes is essential. Generalist experience in personnel administration would be advantageous.

Starting salary from \$17,500 per annum commensurate with qualifications and experience. The University of Alberta offers a comprehensive employee benefits package including course fee assistance and a dental plan.

Interested persons should apply by comprehensive résumé by 12 February 1979 to: Personnel Services and Staff Relations, 3rd Floor, Students' Union Building, 114 Street and 89 Avenue, Edmonton, Alberta, T6G 2J7.

Trainer for Local Government

The Boreal Institute for Northern Studies at The University of Alberta requires an adult training specialist to work under the direction of the Government of the Northwest Territories, Department of Local Government.

This specialist will be involved in the activities of research and development, program administration and presentation, and program evaluation in approximately sixty communities in the Northwest Territories.

This is a one-year appointment with a salary negotiable to \$25,000 and with an excellent benefits package. The successful candidate will reside in Yellowknife; removal costs to Yellowknife and a substantial living subsidy will be paid. The position offers an excellent opportunity for a person who holds an undergraduate degree in education or social sciences, and who has had experience in instructing adults. Northern experience or experience dealing with native people would be an asset.

Apply in writing to the Director, Boreal Institute for Northern Studies, The University of Alberta, CW-401

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, third floor, SUB, telephone 432-5201. Please do not contact the department directly. Positions available as of 2 February 1979.

Duplicating Operator I (\$695-\$748)—Law File Clerk (\$695-\$803)—Office of the Registrar (two positions)

Clerk Typist II (\$695-\$803)—Office of the Comptroller

Clerk Steno II (\$695-\$830)—Mechanical Engineering; Education—Student Records Office; Dean of Education; Chemistry

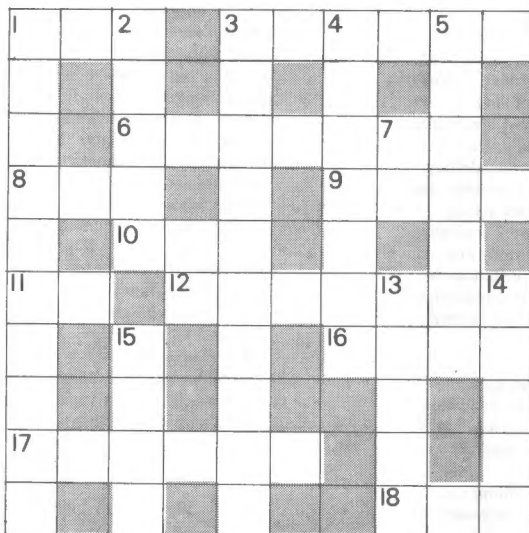
Library Clerk II (\$695-\$830)—Faculté Saint-Jean

Clerk Typist III (\$748-\$895)—Soil Science

Data Entry Operator I (\$772-\$929)—Bookstore

Senior Financial Records Clerk

Folio Crossword Number 6



Across

1. A wind that blows no good. (3)
3. That pedestrian leader of NASA? (6)
- 6, 12. How certain doctors in this province maintain their equilibrium? (7, 7)
8. The seventeenth letter of the Greek alphabet. (3)
9. A Chinese dynasty (A.D. 618-907). (4)
10. Uncooked data? (3)
11. The mother of degrees? (Our first was awarded in 1912 in Classics to Walters Farrell Dyde.) (2)

Down

1. We all hope for them, though we not merit their award. (10)
2. According to Vergil, it conquers all. A good motto for the CLC? (5)
3. A superstitious frequenter of watering places—or one who hopes for your success. (4, 6)
4. Ingredients for soup before Easter? (7)
5. Levelling off at the end of the day? (7)
7. The symbol for Calcium. (2)
13. From short to long feet in metre. (5)
14. Icy. (5)
15. The central zone of the University? (4)

(\$772-\$929)—Drama

Clerk Steno III (\$772-\$929)—Educational Psychology; Electrical Engineering; Physics; Student Counselling; Law; Secretariat; Civil Engineering; Vice-President (Finance and Administration)

Clerk Steno III (\$772-\$929, trust)—Community Medicine

Programmable Typewriter Operator II (\$803-\$969)—Personnel Services and Staff Relations

Admission Records Trainee (\$803-\$969)—Office of the Registrar

Data Entry Operator II (\$830-\$1,009)—Sociology

Secretary (\$863-\$1,053)—Extension Departmental Secretary (\$969-\$1,192)—Psychiatry

Computer Assistant I (\$695-\$830)—Computing Services

Chemical Technician I/II (\$895-\$1,243, trust)—Chemistry

Electronics Technician I (\$929-\$1,143)—Civil Engineering; Chemistry

Building Service Worker IV (\$969-\$1,192)—Housing and Food Services (HUB)

Technician II (\$1,009-\$1,243)—Pathology (R.T.); Animal Science (Instrumentation)

Security Officer I (\$1,009-\$1,243)—

Campus Security

Bacteriology Technologist I/II (\$1,009-\$1,415-FTE, part-time, trust, term)—Medical Bacteriology

Nurse (\$1,096-\$1,354)—University Health Services

Programmer/Analyst II/III (\$1,192-\$1,759)—Computing Services

Programmer/Analyst III (\$1,415-\$1,759)—Chemical Engineering

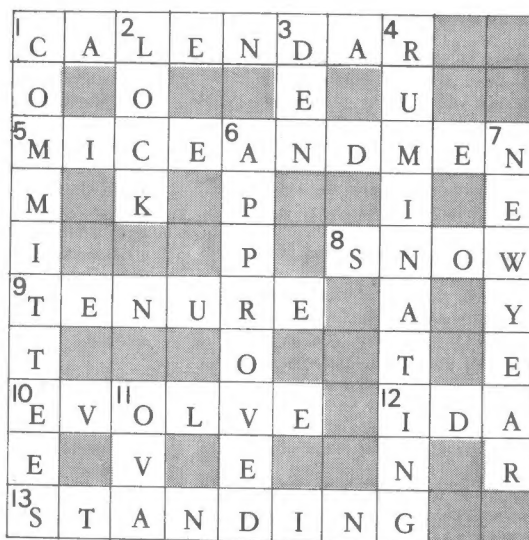
Programmer/Analyst III/IV (Word Processing Systems Analyst) (\$1,415-\$2,104)—Computing Services

Biology Technologist IV (Biosafety) (\$1,476-\$1,838)—Medical Bacteriology

Advertisements

All advertisements must be received by 4:30 p.m. on the Thursday prior to publication. The cost is 15 cents per word for the first week and 5 cents per word for subsequent weeks ordered before the next deadline. Advertisements must be paid for in advance, and are accepted at the discretion of the Editor. We regret that no advertisements can be taken over the telephone. For order forms or further information, telephone 432-2325.

Answer: Folio Crossword Number 5



Accommodations available

For sale—Windsor Park. By owner.

Approximately 1,700 sq. ft. bungalow. Finished basement. Large lot. Clear title. \$168,500 firm. For appointment, call Mrs. Gerald 433-8956. No agents please.

For rent—Four bedroom house, Windsor Park, available summer 1979 for one year. Phone 432-4109 or 433-3498.

For sale or rent—Hi-rise condominium

"The Saskatchewan." Floor 12.

9737 112 Street. River valley view.

Two bedrooms. Monthly rent \$580.

Sale \$75,000. Low down payment.

Ken 482-2883, 482-2087 after 6 p.m.

For rent—Female wanted to share spacious convenient apartment. \$168 monthly. 433-6539 after 10 p.m.

For rent—Furnished or unfurnished offices from \$150 monthly. Close to University. Secretarial and photocopying services available. Phone 432-7565 or 433-6663 evenings.

For sale—12 x 48 newly remodelled mobile home. On acreage two miles south Sherwood Park. Includes fridge, stove, washer, dryer, custom-made drapes, attached shed, sundeck. Must sell, leaving province. \$12,500. 467-1676 evenings.

For rent—Furnished four-bedroom home, Greenfield. Near good schools, University. For one year from August 1979. Rent and possession negotiable, or exchange for home in Montreal. 434-6848.

For rent—Ottawa. 1 July 1979 - 1 July 1980. Furnished three-bedroom home, brick with fireplace, close to Carleton University and Ottawa University. \$575 a month plus utilities. Prof. Eugene Swimmer, 155 Belmont Ave., Ottawa. 613-235-2978.

For sale—By owner. Duggan, three-bedroom bungalow. Family room, bathroom, den, and storage area downstairs. Double garage, garden shed, fully fenced. \$85,500. 435-6009. No agents.

For rent—Large three-bedroom apartment. Own entrance, new 4-plex. Ideal for family or small group. Appliances, some utilities included. Central quiet position. 14617A 103 Avenue. Phone 458-8478 evenings.

For rent—Three furnished rooms to male student (non-smoker), private home near ravine in quiet SW area, 15 mins. by bus to U of A. 435-2253 after 6:30 p.m.

For rent—Desirable office space opposite Corbett Hall. 1,000 sq. ft. ground floor, all utilities and parking facilities. Phone for appointment. W. Andrews, 433-1676.

For rent—Home on 22 acres. Ravine view. Very private. 45 minutes S.W. of University. Excellent paved roads. Please consider it can take longer to drive to many Edmonton suburbs. Four bedrooms, three bathrooms on three levels. Fully carpeted. Fireplace, attached double garage with automatic door opener. Five appliances, private telephone line. Deck surrounding house—and more. \$600 per month. Negotiable. \$500 damage deposit. Long term lease. Available ASAP. June bus. 426-5002, evenings 433-6376, weekends 1-789-3800.

For rent—111 St., 76 Ave. Three-bedroom suite in 4-plex. Appliances. Utilities paid. 434-8961.

For rent—Two suites: 98 St., 75 Ave. One-bedroom basement, large, bright, carpeted, appliances. 96 St., 83 Ave. Two bedrooms main floor, two

bedrooms basement, carpet, appliances, heated double garage. 434-8961.

For rent—For one year up to 15 months beginning May/June 1, 1979. New split level home, Southside/Blue Quill, three bedrooms, 1½ bathrooms, garage. Furnished and decorated, three major appliances, good bus connections, close to large shopping centre. No pets. References. Damage deposit. \$600 monthly. Call 432-5930 or 435-9527.

For sale—Westend by owner. 1½ years old, three-bedroom condominium. 1½ bathrooms, four appliances, landscaping. Asking \$46,600, offers. A real deal. 462-5762 evenings and weekends.

For rent—Professional career lady willing to share three-bedroom home with same. 432-9154 after 5 p.m.

For rent—Wanted female to share basement suite. \$125. 1 Feb. Bonnie Doon. 468-4369 after 6 p.m.

For rent—Wanted faculty member or graduate student to share from 1 March, then take for summer or longer. Two-bedroom apartment,

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DO YOU NEED A DANCE SPACE?
for classes, rehearsals, workshops

The Alberta Contemporary Dance Theatre

has studios to share
in its new headquarters at:

10048 - 101A Avenue

For negotiable rates and available hours please call:
432-2492 (office), 435-1691; 432-2271 (message)

25-minute walk to University. \$230 monthly. 433-6145 evenings.

For rent—Graduate student sublet bachelor suite HUB, 1 March - 1 Nov. \$165. Below mall, park view. 439-7970.

For sale—By owner. King Edward Park. Three bedrooms, 1,200 sq. ft., 1½-storey, fully renovated. \$74,900. Call Jeff 432-5291, 439-5074, 963-7208.

For sale—South Petrolia. Former Perry show home. 1,921 sq. ft. on huge pie-shaped lot across from the Derrick Golf and Country Club. Four bedrooms, three bathrooms, family room with open fireplace and patio doors to cedar deck, attached double garage. All appliances and drapes. \$142,500. 11763 35 Ave. 436-8306.

For sale—New listing Groat Estates. Older home with over 2,000 sq. ft. Large new kitchen, large dining and living rooms main floor. Three large bedrooms second floor with washer and dryer area. Third floor family room could be used as a suite with separate entrance or large master bedroom. Many extras include Jenn-Aire stove, built-in dishwasher, two open fireplaces. Wired for intercom. Priced to sell. \$118,500. Call Norm Werenka. A.E. LePage Melton Ltd. 451-2437 or 487-6150.

For rent—Temporarily professor Across from University. 117 St. Only responsible party need apply. Possession can be arranged. 433-7556 to 10 a.m. or after 6-9 p.m. for appointment.

For rent—House on three acres from 1 June 1979 to 1 July 1980. Four bedrooms, 2½ bathrooms, two fireplaces, heated two-car garage. 20

minutes to University. 988-5127. For sale—Unique house. Walking distance to University. 1,860 beautifully finished square feet, three bedrooms, two bathrooms, family room, deck, garage. Immediate possession. 432-7902.

Available for purchase—Two blocks to campus (on Windsor Road) facing beautiful neighborhood park. Spacious well kept two-bedroom bungalow with basement that includes large family room. Featuring natural stone fireplace, bedroom, workshop area, shower, and cold room. The large 70' x 140' well-treed lot, attached heated garage and separate carport add to the livability of this exclusive property. For viewing arrangements contact Frost Perry & Associates Ltd., 488-3990 or Mr. Ken Perry 487-4233.

Automobiles and accessories

1974 GMC Sierra Grande ¾-ton Camper Special, with canopy. Excellent condition. 434-7751 evenings. For sale—1975 Boler 13-foot trailer. Excellent condition. 483-5934.

Goods and services

Experienced typist. Variety of type styles, symbols. Quality work. 435-4407; 435-5006.

\$Sell Yourself\$ with a professionally prepared résumé. Contact Valerie Harrison—Western Personnel Registry 10444 82 Avenue 2nd Floor. Phone 432-7565.

Will do top quality typing. Phone 455-6398.

Interested having your area snow

Invitation to France



The Paris American Academy lifts the language barrier to make it possible for you to begin an exciting and unusual educational experience.

This institution is in association with the University of Paris, Ecole du Louvre, Monuments historiques, Paris Conservatory, many renowned artists of the city, and leading fashion houses

Credit Transfers Available
Study Programs Include:

- (please check)
- ☐ Academic Year Oct 15-June 1
 - ☐ January Interim Jan. 4-Feb. 1
 - ☐ Summer in France July 1-Aug. 4
 - ☐ Fashion in Paris 4-week Workshops
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Procedures for Evaluating Instruction in a University Setting

*A Report prepared by the
Committee for the Improvement of
Teaching and Learning*

*Submitted to the Executive Committee
of the General Faculties Council,
The University of Alberta,
on 16 November 1977*

Introduction

In 1976, the Executive Committee of General Faculties Council directed the Committee for the Improvement of Teaching and Learning "... to study and report to General Faculties Council suggested guidelines of criteria for judging the teaching ability of an instructor and ways of applying these guidelines." The Committee has reviewed the literature and made the following observations.

Since their inception in the twelfth and thirteenth centuries, modern universities have been devoted to the twin purposes of research and teaching. Sir James Mountford (1966) suggests that the two functions have not always been equal in emphasis throughout time. The medieval university was dedicated almost exclusively to teaching, while the twentieth century university has a great deal of emphasis placed on research. More recently the emphasis has tended to move back towards teaching, as rising numbers of students and budgetary limitations have compelled academic staff to assume heavier teaching loads, and rising expectations on the part of the students, who have increasingly viewed a university degree as a necessary means to obtain well-remunerated employment, have led to a demand that they receive better instruction.

It has therefore become a matter of some importance to know what the current state of teaching is and how it could be improved, if indeed it needs to be

improved. Students have expressed a concern about the quality of teaching, reflected in the publication of course guides and informal "anti-calendars." Is there other evidence on the quality of teaching, to enable one to determine whether improvements should be made? Unless one has accurate information, some form of feedback, it is impossible to judge the effectiveness of teaching.

In reviewing the literature the Committee for the Improvement of Teaching and Learning has identified four major evaluation processes:

- I. Student Evaluation of Instruction,
- II. Peer Evaluation of Instruction,
- III. Administrative Evaluation of Instruction, and
- IV. Self Evaluation of Instruction.

I: Student Evaluation of Instruction

A: Background and Purposes

In recent years, as students have become more involved in university government, the use of student evaluation of teaching performance has increased. Francis (1976) observed that faculty reactions to this phenomenon have ranged "... from guarded acceptance, through apathy and skepticism, to downright antagonism. A common tactic is to support or even applaud the idea of student ratings in principle but then to concentrate criticism on the evaluation instrument, making the

process of arriving at even minimally acceptable rating forms seem tortuous, expensive, and hardly worth the effort."

This reaction by faculty occurs even though student evaluations have had a surprisingly long history. Student ratings of teaching began in the United States in the 1920s and have continued with various degrees of thoroughness and consistency since that time. Though rare in Great Britain, such evaluations have also been practised in Australia and New Zealand for some time [Page (1974)].

The Report of the Professional Orientation Committee to the Council of the Canadian Association of University Teachers (1972) noted that although student evaluations are a recent phenomenon in Canada, they are now an almost universal occurrence. In their survey, the Committee found that thirty-one out of thirty-six responding institutions indicated that they made use of student evaluations of instructors. Both evaluations organized by individual departments and university-wide evaluations run by the student association were common. McGill University has a Centre of Learning and Development to advise faculty members and to arrange for evaluations if desired.

At The University of Alberta, the Students' Union published its first *Course Guide* based on student evaluations in 1968. While the *Course Guide* is currently not being published, some individuals, units and departments on campus have encouraged and made provision for student

evaluation. At the present time some faculties and departments of the University and some students in various faculties on their own initiative have attempted by various means to obtain student reactions to teaching, but these efforts depend upon the initiative of the staff members concerned and take place without co-ordination or professional expertise.

B: The Issues

What are the objections to student evaluation?

The objections to student evaluation of university teaching have sometimes been made on the ground that it provides no valid measure of the effectiveness of the teaching process being evaluated, but only of the likes or dislikes of the students concerned, perhaps merely of their prejudices. The claims have been made that student evaluation is unreliable, that ratings favor an entertainer over an instructor who concentrates on explaining difficult material, that ratings are conditioned by expected grades, and that students are not competent judges in any case, since the long-term benefits of a course may not be clear at the time it is evaluated. Reference has been made to the study of Rodin and Rodin (1972), which suggested that students rate most highly the instructor from whom they have learnt the least.

If the literature on the subject is examined, much of this type of criticism is found to be unsupported.

ported by the evidence, or at least less important than opponents of student evaluation have suggested.

Is student evaluation consistent?

A number of studies have found that student ratings of a given instructor are reasonably consistent for different courses and different periods of time. They have shown that such ratings are not affected to any significant extent by the size of the class, the difficulty of the course, or the expectation of a high or low grade. [Guthrie (1954); Flewellen (1971); Costin, Greenough, and Menges (1971); Murray (1972); Pascal (1974)].

Costin, Greenough, and Menges (1971) conclude that students can evaluate classroom instruction with a reasonable degree of reliability. "In particular, evidence cited concerning stability of students' ratings argues against the contention that student opinions of instruction are difficult to interpret, since they might be made after a particularly good or bad atypical experience (e.g., a lecture)."

There is evidence to suggest that the personality characteristics of an instructor—such as "warmth" or "coldness"—quite apart from the actual teaching performance, do influence the ratings the instructor is likely to receive [Elmore & LaPointe (1975); Baird (1973); Costin & Grush (1973); Isaacson, McKeachie, & Mulholland (1963); Murray (1973); and Elmore & Pohlmann (1976)]. Against this may be set the fact that student ratings have been found to be highly correlated with ratings by colleagues of the teachers concerned and by outside observers [Guthrie (1949, 1954); Maslow & Zimmerman (1956)].

On the whole, the evidence seems to show that, while student evaluations cannot be expected to produce an impeccably objective measure of instructional performance, they are not unduly affected by many of the distorting factors which some have supposed would invalidate them, and their general consistency suggests that they probably can yield some objective information.

Further data about factors affecting student evaluations may be found in Appendices B and C.

Is student evaluation subjective?

Despite what has just been said, it remains true that student evaluations do depend not only on the teaching process but also on the students making the evaluation [Bejar, (1973)]. Lovell & Haner (1955), Remmers & Elliott (1949), and Flewellen (1971) observed that upper-level or graduate students tended to give higher ratings than undergraduates. Haslett (1976) found that more knowledgeable students rated their course higher. This knowledge factor may have been associated with the finding that advanced courses were also rated higher.

Bendig (1952) reported a tendency for female students to be more critical of male instructors than male students were, and Walker (1969) found female students rated female teachers significantly higher than male teachers. However, a number of other studies have found no significant differences in overall ratings of teaching made by men and women students [Caffrey (1969); Elliott (1950); Heilman & Armentrout (1936); Lovell & Haner (1955); Remmers (1939); Goodhart (1948); Isaacson, McKeachie, Milholland, Lin, Hofeller, Baerwaldt, & Zinn (1964)].

In an extensive review of the literature, Follman (1975) concluded that ratings are influenced substantially by the raters' personality characteristics, such as need for academic achievement, social approach, and attitudes towards different fields of study.

In carrying out student evaluations of teaching, differences among the students themselves are variables which cannot be controlled. Yet, despite all such variables, in the research to date there has generally been found to be a high correlation between ratings given by diverse students to the same instructor and course [Guthrie (1954); Clark & Keller (1954); Downie (1952); Gage (1961); Heilman & Armentrout (1936); Stewart & Malpass

(1966); Rayder (1968); Costin, Greenough, & Menges (1971)].

Does student evaluation measure teaching effectiveness?

It may be admitted that student evaluations do not measure the most important thing in the teaching-learning process, namely the amount of learning achieved by the student. As a matter of fact, in most instances there is *no* measure of the learning that has taken place; ordinary examinations measure performance rather than learning. In the absence of a measurement of learning, it is obviously difficult to find out just how effectively a given set of teaching techniques has promoted learning. It has even been suggested that differences in the skill of an instructor may have little to do with the amount the student learns. [Rippey (1975)]. Against this must be set the contention of Roid (1972), working at McGill University, who claims that student evaluations enable an instructor not only to identify administrative and management problems in a course but also to tell what, and how well, students have learnt from a course.

Correlational studies of student perceptions of teaching skill with student academic performance have not produced consistent results. One study, already referred to, suggested that the students of highly-rated teachers performed *less* well than others. [Rodin & Rodin (1972)]. Rippey (1975), however, claims that the methods of this study were unsound. Others have found some positive correlations between highly-rated teaching and student performance. [Kulik & Kulik (1974); Costin, Greenough, & Menges (1971)].

The two most subtly designed studies have yielded mixed results. Gessner (1973) found that highly-rated teaching correlated with good performance on national examinations in the United States, while Centra (1976), in an experiment carried out at Memorial University in Newfoundland, discovered that some highly-rated teachers had students who performed outstandingly well, but another equally

highly-rated teacher did not. There are as yet no sufficient grounds for equating a high student rating with actual teaching effectiveness.

What information can student evaluations provide?

In view of all the above considerations, it is perhaps most accurate to say that student evaluations *describe* teaching with tolerable accuracy. However, they tend to measure student satisfaction rather than teacher effectiveness. This does not mean that the information they provide is irrelevant from the point of view of the University. Student satisfaction is of course an important consideration for a publicly-supported institution in a province where a good many voters are students or parents of students, and many legislators are also likely to be graduates. In addition, the description is useful information for staff members who wish to improve their teaching. The description of their teaching performance, as their students perceive it; and the present committee considers that for the University systematically to obtain this information would be highly desirable.

What are the purposes of student evaluation?

Three main uses are commonly mentioned for student evaluations: (i) to enable students to choose courses offered by instructors whom they consider excellent teachers; (ii) to enable administrators to assess the quality of the teaching of members of their academic staff; (iii) to enable instructors themselves to improve the quality of their instruction. The second and third uses call for comment.

Student evaluations can aid administrators to assess the teaching of members of their staff, with a view to salary and promotion decisions. However, as Sheehan (1975) and Knapper, McFarlane, & Scanlon (1972) point out, student evaluations should be used to assess teaching competence only in conjunction with other forms of rating. Student evaluations naturally reflect the viewpoint of the students, and Sagan (1974) found

that students and department chairpeople stressed different characteristics in rating the same instructors. Both points of view ought to be considered in judging an instructor's effectiveness, as well as those of their colleagues and of the instructors. Moreover, Kulik & Kulik (1974) caution that student evaluations are not helpful in comparing the performances of different teachers. Different teaching styles may produce different patterns of student evaluation, but be equally effective.

From the standpoint of the University, by far the most important use of student evaluations is as a means to assist instructors to improve their teaching. [Pascal (1975), citing Cronbach (1963)].

Student evaluations judiciously used can assist an instructor to amend deficiencies in courses or to improve them if they are already good. At least the instructor may be able to alter those aspects of teaching which have caused marked dissatisfaction. Roid (1972), as already mentioned, claims that student evaluations enable an instructor not only to identify administrative and management problems in a course but also to assess student learning.

One side effect of student evaluation deserves mention. It can place a "beneficial indirect pressure" on staff to improve teaching. [Knapper, McFarlane, & Scanlon (1972)].

C: Administrative Concerns

Who should draw up the instrument for evaluation?

It is logical to suggest that, as student evaluations are intended for use by both students and faculty, both students and faculty should take part in working out the best method of evaluation. [Knapper, McFarlane, & Scanlon (1972)].

What aspects of teaching should be evaluated?

Contrary to what might be thought, there is a large measure of agreement on the most important qualities of highly-rated

teaching. For the purposes of drawing up an instrument for evaluation in Canada, the most useful single list is probably that of the thousand Canadian graduates surveyed by Sheffield. An interesting list has also been drawn up by the University of British Columbia. [Sheffield (1974)]. In addition, a number of studies originating in the United States provide useful ideas. [Kulik & Kulik (1974); Costin (1971); Gray (1969)].

Instruments used by such Canadian universities as McGill and Western Ontario, as well as those used by a number of United States universities, are to be found in the "Course Evaluation Information Kit" issued by the (Canadian) National Union of Students (1976). There are, in fact, many data which could be drawn upon for constructing a suitable instrument for student evaluation of courses at the University of Alberta. Some examples are provided in Appendix D. Appendix E gives information on the procedures which might be used for constructing an instrument for use at this university.

How should evaluation be conducted?

A number of precautions need to be observed in order to obtain evaluations that are as objective as possible. Sheehan (1975) reports a study by Fentress and Swanson (1973) in which it was found that subtle instructor reinforcement and subtle plus outright instructor reinforcement caused student ratings to rise substantially. Centra (1975) observed that written directions stating that the results of the evaluations were to be used for salary and promotion purposes did not significantly affect results but that oral appeals could. Consequently, there is a need to establish appropriate procedures for administering student evaluations. Students should distribute and collect evaluation forms and seal them in an envelope, all without the presence of the teacher.

The form in which the results of student evaluation should be presented is a matter for those drawing up the instrument of

evaluation to consider. A brief discussion of this question will be found in Appendix G.

How can student evaluations be used effectively?

In view of the proposition maintained above, that the most important function of student evaluations from the standpoint of the university is to help in improving teaching, it must seem paradoxical that research has not supported the contention that such evaluations do result in improvement in teaching. [Thomas (1969); Pambookian (1972); Centra (1973)]. How can the absence of improvement be explained?

One explanation may be found in the circumstances of the studies. Pambookian and Centra found that student feedback was more helpful to some instructors than to others. In Centra's study, those instructors who had high opinions of themselves tended to be more affected by the ratings. The short time span between ratings and reassessment for perceived change has also been criticized.

In the opinion of this committee, however, no substantial improvement in teaching can be expected to result merely from the existence of a procedure for student evaluation. Instructors must be provided with the time, resources, and assistance necessary to effect the changes in their teaching methods that student evaluations show to be desirable. [Kulik & Kulik (1974)]. Otherwise the whole exercise becomes fruitless. What is the point of evaluating teaching without providing means for the teacher to improve?

Many universities in the United States already provide expert assistance for the improvement of teaching; the University of Massachusetts Clinic to Improve University Teaching, the Center for Instructional Development at Syracuse University, and the Center for Research on Learning and Teaching at the University of Michigan may be particularly mentioned. In Canada the work of the Centre for Learning and Development at McGill University is especially noteworthy. Other

universities, such as Guelph and Concordia, have established committees for the purpose of improving teaching while Memorial has created the position of Dean of Junior Studies. Still others such as Winnipeg have appointed vice-presidents or deans specifically responsible for "instruction".

The partial release of staff for the purpose of restructuring courses is an obvious complement to the provision of expert assistance in doing so. Further contributions to improved teaching could be expected from enhanced intra-university communication and from adequate travel resources to support a high level of intellectual interchange among staff at different universities.

Moreover, there is a likely relationship between teaching and learning effectiveness and curricular structure. More consideration might well be given to insuring that the curriculum properly balances the immediate concerns of students and society with the fundamental aspirations of the university. A commitment to the effectiveness, in the fullest sense, of classroom teaching is indivisible from a commitment to educational excellence in every respect. ["Harvard Reviewing Undergraduate Curriculum," *Chronicle of Higher Education*, No. 26, 1976].

In its report to General Faculties Council in October 1975, proposing the establishment of a Centre for Instructional Development at the University of Alberta, this committee stated: "Good teaching is serious business, and any university interested in improving its teachers and its teaching must, we think, be willing to help those who are willing to help themselves. The improvement of teaching is too important to be left to chance or assigned to faculty members as a task over and above their normal loads." The prospect of formal student evaluations of teaching makes action on this principle all the more urgent.

D: Concluding Comments on the Student Evaluation of Instruction

After a careful study of the results of research on student evaluation of instruction, this committee considers that such evaluation should be systematically undertaken in order to provide faculty with information about student perceptions of and attitudes to teaching performance.

This committee endorses the recommendations of the committee of the Canadian Association of University Teachers which reported on the subject in 1972. [Knapper, McFarlane, & Scanlon (1972)]. These recommendations are attached as Appendix F.

It was these considerations, and others that led the Committee for the Improvement of Teaching and Learning to recommend the following to the Academic Development Committee of the University of Alberta in the fall of 1976:

1. Faculty should cooperate with students in order to construct as valid a method of obtaining student evaluations as possible.
2. Student evaluations should be conducted by the students in the classroom without the instructor being present.
3. Results of student evaluation should be communicated to the instructor in question.
4. It should be recognized that all forms of student evaluation have limitations and that they constitute only one source of information about teaching performance. The use of the results of student evaluation in making decisions on the granting of tenure, promotion, or merit increments should be regarded with caution.
5. Academic staff must be provided with time and resources, such as the proposed Centre for Instructional Development, in order to improve their effectiveness as teachers. Such provision is essential to enable the practice of student evaluation to be of maximum benefit to the University.

II: Peer Evaluation

The scanty amount of research done on the evaluation and role of teaching at the college and university levels may be evidence either of the second place role it plays in evaluating the teaching corps at this level and/or the fact that it is extremely difficult to measure good teaching.

Centra (1975) and Batista (1976) have attempted to devise means of using input other than that of administrators and students. They suggest that peers could do a valid and reliable task if they could give more time to observations than has been done in the research commented upon, and provided they were trained to have certain common way of recording their observations. It is therefore probably desirable that colleagues obtain some training in observation techniques.

Batista goes one step further, when he suggests that colleagues would be better suited than administrators or students to judge:

- "1. the up-to-date knowledge of subject matter,
2. the knowledge of what must be taught,
3. the knowledge and application of the most appropriate or most adequate methodology for teaching specific content areas, and
4. knowledge and application of adequate evaluative techniques for the objectives of his/her course(s)."

The four points isolated above are included in ten point categories devised by Batista to pinpoint the areas in which colleague evaluation will serve a purpose. Because there is not always a positive correlation between students' opinions and colleagues' judgments in teacher assessments, colleagues should be asked to evaluate their peers with regards to the above four points. This should result in improving the fairness of the overall assessment of the instructor.

Various authors emphasize that a few visits by peers to the classroom may not be enough and they recommend a longer observation period and/or team teaching approach to obtain more valid assessment. The purpose of such an evaluation could be diagnostic:

to aid the instructor to improve the teaching performance and prognostic for tenure. Further, it would provide information which would be useful for making decisions on promotion. It may also stimulate research on teaching.

Besides the observational method whereby the instructor is observed by peers in the classroom, much can be learned through an examination of syllabi and related course materials. By such a study James H. Baird [(1975) pp. 47-48] suggests colleagues provide answers to the following questions:

- "1. Does the instructor have clearly stated objectives for the course, and do these represent a fair mastery of the content to be covered?
2. Are there indications (handouts, lesson guides, etc.) that the instructor has communicated the objectives to the students?
3. Do the learning experiences called for (texts, reading lists, handouts, films, demonstrations, assignments, etc.) clearly support the course objectives?
4. Is the content (facts, concepts, interpretations, etc.) consistent with the current state of the art for the subject matter? Is the instructor's treatment of the content accurate and unbiased where conflicting interpretations exist?
5. Do the student examinations reflect the emphasis given to the subject matter and course objectives?
6. Are the examinations consistent with the course objectives, giving the student a fair opportunity to demonstrate mastery?
7. Are the learning experiences organized or sequenced appropriately for the content characteristics and the level of learning specified in the objectives?
8. Are the instructor's grading practices reasonable with regard to the course content and goals, the students who enroll, and the standards of the department or the institution?
9. Will successful completion of the course adequately prepare students for subsequent courses for which this may be a prerequisite?
10. Does the course content represent inappropriate replication of content in other courses, either within the department, degree program, or institution?"

III: Administrative Evaluation

The administrative role in the evaluation of teaching is a dual

one. By considering and hopefully integrating the ratings of others (students, peers, and other administrators, and possibly the public-at-large) in making an evaluation, they may themselves contribute evaluative input to the assessment.

These two roles, that of "... direct observer and personal source of evaluative evidence and that of sifter and integrator of the evidence gathered from all other sources have sometimes led to confusion" [Genova *et al.* (1976) p. 20]. In most situations, the demands of an administrator are dual, but unless the roles are clearly distinguished the administrator's contribution may be ambiguous and be the source of misunderstanding on the part of those being evaluated.

The process involved in the dual roles as observer and integrator shall be discussed in this section. A lack of available and pertinent information severely limits review. As one of our main sources [Glasman, (1976) p. 321] has observed:

"Although evaluation is central to the planned management process, this topic has received almost no attention from this perspective. The literature in this area is limited largely to general description of proposed designs or particular aspects of such systems. Few have been in operation for a sufficiently long time, and usually these systems are limited to departments. Experiences are hardly ever reported, resulting in a scarcity of material."

A: The Administrator as Direct Observer

Presumably administrators (especially department chairpersons) are required to make decisions on such teaching-related issues as *personnel* (selection, advancement, promotion, tenure, and salary), *modification of assignments* (change in teaching load, level of students or course, and frequency of offering course), and *allocation of learning resources* (instructional media packages, teaching assistant, support staff) for which they require evaluative information about faculty. According to Glasman the nature of such evaluative data should probably be judgmental, summative, semi-comparative (across instructors),

end of term only, semi-public (for use by faculty and administrators), and corrective.

In contrast to the proliferation of research-based student evaluation scales there are few instruments derived from research for use in administrative evaluation of faculty. Many merely identify broad areas of concern or on the other hand are too concerned with specific factors deemed important in particular situations to be of any general use. Unfortunately, most administrative evaluation is conducted without forms are scales and consequently is often inadequate and non-comparable. Using forms which at least *suggest* guidelines and at most *specify* real criteria is more equitable.

Two examples of rating instruments can be found in Genova, *et al.* (1976, pp. 100-105). The first sample form contains three dimensions of personal qualities, each of which has several related items. The relative values of all items have been rated, and thus ratings are adjusted and combined to give item scores, dimension scores, and an overall performance score. It is interesting to note that where this scale has been developed and tested (Institute of Technology at Southern Methodist University in Dallas, Texas), administrators use this instrument to evaluate each instructor every year, and the overall performance score is used as the basis for determining faculty salaries for the subsequent year (a ratio between score and salary has been established for this purpose). The second sample is an instrument that typifies those derived from practice rather than research since it identifies both broad areas of concern as well as being specific to a particular situation.

B: The Administrator as Integrator

In the role as a sifter and integrator of the evaluative evidence gathered from all sources, the administrator's major objective is to facilitate instructors' acceptance of having their teaching evaluated. This assumption

is not unwarranted since in general there is faculty opposition to the evaluation of teaching, there is little support in the academic world for teaching careers *per se* and in our universities there is constant tension between teaching and research. As Glasman [(1976) pp. 312-13] puts it:

Though teaching is a major activity in the university, there are no data to indicate, but much logic to substantiate, that teaching is not a major concern of faculty members. Since university professors are not adequately trained for the teaching function, they typically lack awareness of opportunities for instructional improvement. Neither are such opportunities typically available in the university setting. The judgmental nature of evaluation of the instructor's teaching and the consequences which evaluation may have for the instructor make evaluation as a sensitive political issue. Evaluation constitutes a threat to the instructor's academic freedom and professional autonomy. He is unenthusiastic to give up the degrees of freedom he has. He is also reluctant to be evaluated in an area in which he has no substantial interest and lacks training, and especially if information gathered may be used against him when rewards are considered. Under such circumstances, he views evaluation not so much as a useful tool for improvement but rather more as interference with his autonomy by university administration and public representatives. *The problem for the academic administrator is how to provide the instructor with opportunities for improvement and how to facilitate the establishment of a reward structure that encourages increased instructors' concern with teaching.* (Italics added)

The level of importance an instructor attaches to teaching evaluation will be a function of both the level of influence of the evaluators (students, colleagues, administrators) and the extent of agreement among the evaluators (Dornbusch, 1975). Therefore, the higher the influence administrators have over the distribution of organizational rewards and penalties, and the higher the consensus among evaluators, the higher the importance the instructor attaches to the evaluation.

Any administrator who attempts to integrate evaluative information will be faced with certain pressures or at least strongly advocated positions. First, he will be faced with the decision of how the results of teaching

evaluation are to be integrated with results or evaluation of other faculty functions (research, for instance). Second, he will be forced (sooner or later) to respond to societal pressures for accountability. In terms of teaching, the public-at-large will probably want instructors to be evaluated on the basis of the extent to which students learn, whereas the administrator will likely "translate" this public pressure to his Faculties as demands for instructional improvement. The third pressure is that instructors (who will probably only reluctantly agree to be evaluated) will want variables such as students' level of intelligence, administrative support for instruction taken into account in the evaluation. Finally, but not the least in importance, is that there is not sufficient certainty about what good and bad teaching means.

According to Glasman, the administrator's most viable option is to compromise by employing what he calls "process evaluation" in other words, advocating evaluation of behavioral characteristics of the teaching act. Therefore, the appropriateness of the evaluating instrument or instruments can be conceptualized as a function of four basic variables:

1. *The extent of direct control the instructor has over the components of his teaching behavior* (for example, the instructor's accessibility to students is not only a function of his willingness to be accessible, which he controls directly, but also of his teaching load, which he does not control directly).
2. *The degree to which the potential rater is qualified to make judgments about particular components of the instructor's teaching behavior* (for example, to be highly qualified the rater must be directly exposed to the behavior in which evaluation is expected and also possess a sound set of criteria for evaluating such behavior).
3. *The purpose for which the evaluation is being made* (for example, relevant audiences who see and use the evaluation results are the instructor himself, colleagues and administrators at his institution, his current or potential students, and possibly the public-at-large).
4. *The extent to which the evaluation instrument reflects the instructor's particular teaching situation* (for example, undergraduate versus graduate teaching).

In conclusion, the role of an administrator in the teaching

evaluation process should be viewed as an identifiable leader because without this leadership very little, if anything, will be pursued voluntarily. In the words (yet again) of Glasman [(1976) p. 318]:

If the objective is to facilitate an increase in faculty acceptance of evaluation, if such acceptance is partially a function of the attainment of valid and reliable evidence, and if such attainment is partially a function of interest and competencies of instructors, then it is incumbent upon the administrator to lead the way in searching for the *best correspondence between interests and competencies of individual instructors and what the instructors and the institution as a whole consider valid and reliable evaluative evidence in teaching. The more successful the administrator is in bringing about such correspondence, the more widely accepted and less criticized the evaluation program will likely become.*

IV: Self Evaluation

A: Advantages and Disadvantages of Self Evaluation

It is a common characteristic of *homo sapiens* to reflect on the success of their efforts. Humans are conscious of their work and the results achieved. Reisman (1950) suggests two categories of how individuals assess themselves: inner directed and other directed. Many academicians would like to think they were in the former category.

Advantages

The process of formalizing the self evaluation document will provide at least four advantages.

Firstly, it will aid the author to crystalize the educational goals he wishes to obtain in this course. These educational goals could be global, in the sense of an end-of-the-term goal, or specific as in a goal at the end of a unit.

Secondly, the process of developing a self evaluation form sensitizes the instructor to feedback from the environment. If the instructor wishes to examine some facet of his teaching, he may devise some means to test its effectiveness.

Such monitoring of the environment will help the self evaluator

to identify personal strengths and weaknesses. This is the third benefit.

Finally, the process of developing a self evaluation form may cause the instructor to address himself to fundamental epistemological issues.

Disadvantages

There are also disadvantages to developing a self evaluation mechanism. A formal exercise requires time—and some soul searching. Time and effort may well be better spent on other endeavors.

Secondly, setting educational goals is a difficult task, and often one has a tendency to set the goals too high, which could induce frustration.

Thirdly, one tends to overlook personal weaknesses. The Biblical admonition to cast the beam out of one's own eye before removing the mote in the eye of a neighbor is as applicable today as when it was first uttered.

Finally, should one be so perspicacious as to uncover a weakness, he would have difficulty finding an established unit on campus, such as the proposed Centre for Instructional Development, where he could receive help.

B: The Uses of Self Evaluation

Richard Miller (1974) cites two uses of a self evaluation form. The first use is that of a private review by the individual involved. This is reminiscent of a David McClelland (1950) self-motivated achiever type of individual who would want periodically to set goals and assess progress.

The second use mentioned by Miller is a written self evaluation from which would be reviewed by either students or the administration, as a sort of Management by Objectives process. The Committee sees a great deal of malevolence in the latter use because it would encourage the instructor to set low, easily obtained goals, goals which prophesy self-fulfilling successes, rather than honest, realistic ones. Moreover the function of a self evaluation form (evaluating one's

self) is subverted by having an administrative examination and rating.

C: Criteria for Judging One's Effectiveness in Self Evaluation

Self evaluation is perhaps one of the easiest evaluations to make among the evaluative approaches examined in this report, provided Miller's first use is the only one employed. All the instructor needs to do is set down in writing what he hopes to accomplish and what evidence is needed to measure how well it has been accomplished. The instructor should therefore establish some educational objectives or goals. Igor Ansoff [(1965), pp. 40-42] suggests there are three essential elements of goal setting. First, a specific attribute should be selected. Second, a measuring instrument of some sort should be obtained from existing devices or developed if no existing device is available. Third, a goal, i.e., a particular value on the measuring instrument is selected to be achieved within a certain period of time.

Perhaps a hypothetical example may illustrate these three elements. The desired attribute in an introductory computing science course may be the mastery of elementary FORTRAN programming. The measuring device could be the number of errors in computer programming present in the students' final submission of laboratory assignments. The goal of the course could be an error free program in five lab. assignments by 85 percent of the initial registrants in the course by the end of the term.

Educational objective setting is only one way to conduct a constructive self evaluation. One could critically review his syllabus. Are the readings applicable to the course? Is the order of presentation of the material the best possible? Does the pacing of the course need changing?

Secondly, the particular pedagogical approach to a course could be reviewed with the educational level of the learner in mind. Plato's *Meno* [(1949), p. 27]

et seq. describes Socrates teaching one of Meno's servant boys by doing nothing more than posing questions for the child to answer. This is one approach to instruction. Lecturing, laboratory work, seminars, lecture-demonstration, etc. are other approaches. Which will best suit the transmission of knowledge?

Thirdly, one's personal delivery could be reviewed. This could be accomplished in a number of ways. The instructor could do some library research. A number of books and articles dealing with the improvement of teaching are available (e.g., McKeachie's (1969) *Teaching Tips* or Buxton's (1956) *College Teaching* are but a few. One could also discuss teaching problems with colleagues, or actually visit (with permission) a colleague's class. Another approach is to review oneself, either by inviting a trusted and respected colleague to visit one's class, or by having a class videotaped. Finally a person could complete one of the self-evaluation forms present in the literature [e.g., Simpson, 1966]; Miller, (1972). p. 37, etc.].

In summary, self evaluation could be the most private, individualistic and beneficial form of evaluation of instruction the teacher could employ.

Conclusion

The charge to this committee has been "... to study and report to General Faculties Council suggested guidelines of criteria for judging the teaching ability of an instructor and ways of applying these guidelines."

The work of the Committee is only partially represented in this report. There was a plethora of literature, which during review was distilled in order to keep this report succinct. Anyone who wishes to examine in detail any or all facets dealt with in this report should contact the secretary of the Committee.

The Committee has avoided making recommendations in the context of this report—its charge was only to study and report.

This does not mean that members of the Committee are without opinions on how the guidelines outlined in the report could be implemented. The members of the Committee would welcome an opportunity to participate in the decision-making process of General Faculties Council on this vital topic.

One item is important to the Committee. Its members feel that the various forms of the evaluation of instruction are only part of the approach required to improve learning and teaching. In its report to General Faculties Council in October 1975, proposing the establishment of a Centre for Instructional Development at the University of Alberta, this committee stated: "Good teaching is serious business, and any university interested in improving its teachers and its teaching must, we think, be willing to help those who are willing to help themselves. The improvement of teaching is too important to be left to chance or assigned to faculty members as a task over and above their normal loads."

Appendices

Appendix A: Chronology of this Report

(For reasons of economy, this Appendix has not been included. For a copy of the Appendix, which gives a complete history of the antecedents to the Report, please contact Dr. D. Otto, Secretary to CITL, 1-16 University Hall, The University of Alberta, Edmonton, Alberta, T6G 2J9.)

Appendix B: Factors Not Affecting Student Evaluation

1. *Class Size.* The literature suggests that the relationship between class size and ratings is unclear. Guthrie (1954) and Flewelling (1975) say there is no significant correlation between class size and ratings.

Haslett (1976) and Solomon (1966) found that larger classes were rated more highly than smaller classes. However, that finding was not borne out by other studies. Gage (1961); Heilman & Armentrout (1936); Lovell & Haner (1955); Perry & Baumann (1973); and McDaniel & Feldhusen (1970) claim there is a tendency for

small classes to receive higher ratings than larger ones. Of course, smaller classes may be related to the level of the course taught and that could be a confounding factor.

2. *Elective vis-à-vis Required Courses.* Although Heilman & Armentrout (1936) found no significant difference in the ratings made by students who had elected the courses and those who were required to take them, Gage (1961); Lovell & Haner (1955); and Pohlmann (1975) found that required courses received significantly lower ratings than elective courses.

3. *Timing of the Evaluation.* The timing of the administration of student evaluations does not significantly affect ratings [Frey (1976)]. This datum refutes the notion that students use ratings to reward teachers who give high grades and punish teachers who give low grades.

4. *Grades and Evaluations.* Much research has found no significant relationship between grades and student ratings [Costin, Greenough & Menges (1971); Sherman & Blackburn (1975); Flewellen (1975)]. On the other hand, some research has found a positive relationship between student ratings and their expected grade in the course, but as Costin, Greenough & Menges (1971) point out, the positive correlations between student ratings and grades were typically low and weaken the assertion that a teacher can obtain "good" ratings simply by assigning "good" grades.

5. *Stability.* It has been found that student ratings have provided high stability over time. Guthrie (1954) found correlations of .87 and .89 between students' ratings of the quality of their teachers from one year to the next. Costin (1968) found moderate to high correlations between mid-semester and end-of-semester ratings of teaching assistants in psychology, social sciences, humanities, physical sciences and biological sciences.

6. *Other Factors.* Centra (1975) found the differences in student ratings due to the different intended uses of the results was slight. Cheong (1975) found that student evaluations in which students were asked to identify themselves were significantly higher than the official anonymous evaluation.

Appendix C:
The Effect of Teacher Personality on Student Evaluation

1. *Teacher Warmth.* Teacher warmth (rapport) was an important variable influencing the rating of teacher effectiveness. Elmore & LaPointe (1975); Baird (1973); Costin & Grush (1973); Isaacson, McKeachie & Milholland (1963); Murray (1973); and Elmore & Pohlmann (1976) agreed that warm instructors generally received higher teacher effectiveness ratings on items measuring the degree of the instructor's orientation toward students.

2. *Research Productivity and Teacher Evaluation.* Costin, Greenough & Menges (1971) state that research on this count is inconclusive. Linsky & Straus (1975) have concluded that there is little correlation between teaching performance as measured by student ratings and research productivity.

3. *Academic Rank.* The relationship between rank and ratings is unclear. Scott (1976) and Flewellen (1975) found no relationship between rank and ratings. On the other hand, Clark & Keller (1954); Walker (1969); and Langer (1966) found that associate and full professors received higher ratings than instructor and assistants. Riley, Ryan & Lifschitz (1950) found a negative correlations between rank and ratings.

The "Dr. Fox effect" is also cited by those who place little value in student evaluations. Naftulin, Ware and Donnelly (1973) presented an actor as "Dr. Fox" to an unsuspecting group of professional mental health workers. The lecture was rated very highly despite that fact it was deliberately planned to say nothing of consequence. All respondents thought the lecture stimulated thinking.

Appendix D:
Identifiable Characteristics of Good Teaching

In their research, Wotruba & Wright (1975) reviewed twenty-one published studies to obtain a representation of criteria of effective teaching. Their results are as follows:

Characteristic	Frequency of Mention
Interprets abstract ideas and theories clearly	17
Attitudes toward students which are favorable	17
Knowledge of the subject	14
Good organization of the subject matter and course	13
Enthusiastic about the subject	12
Fair in examinations and grading	11
Willing to experiment—flexible	9
Encourages students to think for themselves	8
Pleasant personality or personal appearance	8
Interesting as a lecture—good speaking ability	7
Instructor as a "worthwhile" human being	7
Respects student opinion and is tolerant to student disagreement	6

Sheffield (1974) presented the results of the analysis of comments on effective teaching made by one thousand responding graduates. The top ten, in order of frequency of mention were:

Characteristic	Number
1. Master of his subject, competent	717
2. Lectures well prepared, orderly	712
3. Subject related to life, practical	555
4. Students' question and opinions encouraged	481
5. Enthusiastic about his subject	385
6. Approachable, friendly, available	372

7. Concerned for students' progress, etc. 325
8. Had a sense of humor, amusing 321
9. Warm, kind, sympathetic 278
10. Teaching aids used effectively 278

Appendix E:
The Design of Evaluation Instruments

Frey (1976) claims the number of items in the rating form is important. Frey used the following seven item scales:

1. The student had to work hard in the course.
2. Each class period was carefully planned in advance.
3. Class discussion was welcomed in the course.
4. The student was able to get personal help in the course.
5. The instructor presented the material clearly and summarized major points.
6. The grading accurately reflected the students' performance.
7. The course had increased the students' knowledge and competence in that area.

The rating form was the result of a lengthy development program and stressed student observations rather than student opinions. Wotruba & Wright (1975) set out a methodology for the development of a teaching effectiveness scale: viz.

- a. Develop an item pool.
- b. Screen the item pool.
- c. Survey the assessment of the screened items for importance and for students' ability to rate.
- d. Perform a response analysis.
- e. Develop the evaluation instrument options.

Fenker (1975) found that not all instruments were good in all areas. "The most important finding was that the relevant criteria for outstanding teachers differ considerably across colleges. Also because there were relatively few criteria correlated with overall rating in the School of Fine Arts, it was apparent that the present evaluation instrument was not very appropriate for this college" (Texas Christian University).

On the other hand, Pohlmann (1975) found highly consistent ratings across disciplines. Effective instructors were described as:

- a. knowing when students understood;
- b. increasing student appreciation of subject matter;
- c. answering questions well;
- d. achieving course objectives; and
- e. giving examples to explain complex issues.

If a logically designed instrument is developed, the work of Follman, Lucoff, Small & Power (1974) provide a valuable reference for the construction of the rating form answer format. These researchers compared results of the same set of items using a different set of key statements ranked one to five. Included were Evaluation (Unsatis-

factory to Excellent), Agreement (Strongly agree to Strongly disagree), and Needs Improvement (Needs great improvement to Needs no improvement). They found that differences in format did influence ratings and the kinds of categories influence level of ratings with the "Agreement" and "Needs Improvement" format scoring higher in this study. Sheehan (1975) argued that some items must focus on "difficulty," "workload," and "stress" since these factors have been shown to be related to higher levels of student achievement. Menges (1974) and Frey (1976) say that there is a need to emphasize the idea that students should be seen as observers as opposed to students as judges. This point is emphasized by such items as "This course has increased my knowledge and competence in this area" and "The instructor presented the material clearly and summarized major points" rather than general feelings of like or dislike for the course.

Perry (1969) in a University of Toledo study found that criteria included in evaluations were ranked the same, generally, in terms of importance by students and alumni.

Roid (1972) from McGill University claims that before a particular questionnaire is adopted, the answer to the question about what one desires to measure must be known. A definition of instructional effectiveness should also be ascertained before a particular questionnaire is adopted.

Sheehan (1975) points out that a cycling of ratings is required over time for different purposes. These purposes may be summarized as follows:

- a. to permit identification of broad instructional areas;
- b. to obtain diagnostic scales tailored to pinpoint weaknesses; and
- c. to obtain a final scale to monitor progress.

The model must be perceived by the faculty as nonthreatening and the utility, validity and criteria for judging the rating scales must be perceived as non-threatening.

Smock & Crooks (1973) have produced a plan for three levels of evaluation:

Level 1. Input comes from the students. The questionnaire is short with five to ten items and is very general.

Level 2. This model is intended to get at specific attributes of the course with input coming from students, colleagues, and administration.

Level 3. There is detailed diagnostic feedback.

B. Specific Instruments.

a. *Semantic Differential* (Osgoode, 1952) —Sherman & Blackburn (1974) describe this instrument as "... made up of thirty bipolar adjective-pair items descriptive of various personality characteristics." Adjective-pairs directly related to teaching (logical/illogical, organized/disorganized) were mixed on the form with those more

associated with personal traits (e.g., bold/timid, warm/cold).

Naturally, there is the question of whether different instruments are required for various faculties and departments within the same university. Asher (1969) found some differences as to which attributes of teachers should be rated by instructors, students and administrators. In addition, academic subject area was a factor in criterion selection. Thus there is some need to tailor instruments to individual department needs.

b. *The Purdue "Cafeteria" system*—In 1975 the Ohio Wesleyan University held a workshop to explain the Purdue "Cafeteria" system. This system consists of an item bank from which items, specific to an objective, can be selected. There is a computerized program for marking the returned evaluations and other criteria are built in to use in the interpretation of the results. This system can be highly individualized and is good diagnostically. However, it does leave in question the adequacy of a central core of items and immensely crude basis for instructor comparison (Oberlin *Alumni Magazine* 1975).

c. *SIRS, the Student Instructional Rating System*—Olson (1970) describes SIRS as a ready-made instrument to determine student attitudes towards instruction coupled with a reporting procedure. In this system there are descriptive items, value judgment items, and information that would help students decide about enrolment. SIRS is a "... system for collecting, analyzing, displaying, and interpreting student reaction to classroom instruction and course content. The components of the system are the FORM, the REPORT, the MANUAL, and the TECHNICAL BULLETIN." At present, many of the negative comments by students and faculty users of SIRS concern the generality of the FORM and the lack of relevance of certain items to specific courses. Positive comments often mention the pertinent feedback from student to instruction.

Appendix F: Recommendations of a Committee of the CAUT

The Canadian Association of University Teachers (CAUT) which in 1970 set up a committee to make a thorough study of the preparation and evaluation of university teachers, made the following recommendations:

- "1. Evaluation by students should be encouraged as a means of providing faculty with feedback concerning student *attitudes* to teaching performance.
2. It should, however, be recognized that even properly constructed evaluation forms have many limitations and that they are only one source of information about teaching performance.
3. Where student evaluations are used,

the instruments involved should be as reliable and valid as possible.

4. The use of results from student evaluations of classroom performance to provide evidence for decisions on the granting of tenure, promotion or merit increases should be treated with extreme caution.
5. Evaluation procedures, to be effective, must have strong faculty involvement in planning, administration and interpretation of results.
6. Results of evaluations should be provided to the faculty member concerned.
7. While it may be perfectly reasonable for students to carry out evaluations for their own purposes, such evaluations should under no circumstances be used by university administrations as the principal means of assessing teaching performance.
8. Instead, we suggest that an active concern by faculty in the improvement of teaching, and their readiness to carry out valid evaluations of their own performance, will render the information provided in anti-calendars redundant."

Appendix G: "Subjective" and "Objective" Reporting of Evaluations

The National Union of Students, in its "Course Evaluation Information Kit" (1976), points out that the results of evaluations may be presented in either a "subjective" or an "objective" format.

The more subjective type of format, such as the one in use at Columbia, "... is usually characterized by written summaries of statistical data which rely heavily on student comments. A key benefit of this approach is its readability and variety. However, the subjective approach means that imprecise (and sometimes biased) reporting of students' opinions often causes criticisms by students and faculty alike. In several instances legal action has been taken against the writers and publishers of these evaluation publications. Faculty cooperation and support for the student-initiated project has deteriorated in many cases."

The more objective format, such as the one used at the University of Western Ontario, "... is based upon statistical presentations including raw, or unanalyzed data. While this approach is more objective, its main drawback is failure to communicate. It is difficult to make sense out of the seemingly endless statistics. As a result few students make complete use of the results in selecting their courses, and few teachers interpret the indications about their classroom performance."

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